

ROOM USE ONLY

JUL 3 1969

Math

236

# Mathematical Reviews

THE UNIVERSITY  
OF MICHIGAN

JUL 2 1969

MATHEMATICS  
LIBRARY

*Published monthly by The American Mathematical Society*

## INDEX FOR VOLUME 37

January 1969 - June 1969

### TABLE OF CONTENTS

Author Index . . . . .	1339
Key Index . . . . .	1440
Subject Classification . . . . .	1442
Abbreviations of Names of Journals . . . . .	1450
Journals in Translation . . . . .	1467
Errata and Addenda . . . . .	1468
Transliteration of Cyrillic . . . . .	1471

Abs  
 fo  
 Abs  
 ty  
 Abs  
 Abd  
 in  
 ti  
 Abd  
 po  
 Abd  
 go  
 Abs  
 m  
 Abs  
 fo  
 Abh  
 51  
 Abia  
 fi  
 Si  
 Abic  
 V  
 Abre  
 lin  
 Abre  
 of  
 Azil  
 de  
 Acze  
 Acze  
 Adas  
 Pl  
 Adas  
 of  
 Adas  
 in  
 Adas  
 lin  
 Zy  
 Adas  
 Adas  
 six  
 Adas  
 Be  
 Adas  
 bo  
 be  
 Adas  
 ad



# Mathematical Reviews

Vol. 37, Index

1969

pp. 1339-1471

## AUTHOR INDEX

References are to review numbers; an Errata section may be found at the end of this Index. Russian authors are listed under the transliterated spelling of Russian used by Mathematical Reviews (see table at the end of this issue). Surnames consisting of more than one part (e.g., von Bahr, de Branges, etc.) are listed under the first capital letter.

Items without indicated authors are usually listed separately in the Key Index, which follows the Author Index. Collections of papers for which an editor (or editors) is named are referred to under the editor's name. They are also listed in the Key Index. A star (★) before a title indicates that the item is a book, while a dagger (†) indicates that reference is made to the item in the Errata section.

- Abakirov, B. 5815: The group of homothetic motions  $H$ , ( $r \leq 3$ ) in four-dimensional Riemannian spaces.
- Abakumov, T. D. 1913: Some singular integral equations of convolution type, with the principal value of the integral.
- Aban'in, A. M. 5487: The stability of the zero solution.
- Abdel Karim, Abbas I. 1085: Criterion for the stability of numerical integration methods for the solution of systems of differential equations.
- Abdrahmanov, M. A. 1800: A problem in adjointness for equations of parabolic and hyperbolic types.
- Abdurahmanov, R. 435: Singular integral equations in the space of generalized functions.
- Abels, Herbert. 337: Über die Erzeugung von eigentlichen Transformationsgruppen.
- Aberth, Oliver. 1396: The transformation of tensors into diagonal form.
- Abhyankar, Shreeram Shankar. 5219: A criterion of equisingularity. 5220: Note on coefficient fields.
- Abian, Alexander. 2902: On the nilpotency of algebras. 5102: A fixed-point theorem for mappings. 2596: (with LaMacchia, Samuel) On the existence of an empty set in set-theoretical models.
- Ablow, C. M. 2398: (with Bradley, Lee C.; Aggarwal, H. R.; Wood, Van E. and Glasser, M. L.) Table errata.
- Abramovich, John. 537: A note on the characteristic numbers of linear systems of differential-difference equations.
- Abralin, V. N. 1099: A numerical scheme for the approximate solution of the Cauchy problem for a second order hyperbolic equation.
- Ačilov, H. 6465: (with Zmorovič, V. A.) Extrema of certain functionals defined on the class of  $C$ -functions in the disk  $|z| < 1$ .
- Acsél, J. 4440: General solution of "isomoment" functional equations.
- Acsél, S. 3230: Works on functional equations.
- Adachi, Masahisa. 920: PL-submanifolds and homology classes of a PL-manifold. II.
- Ádám, András. 1270: Correction to: "The quasi-series decomposition of two-terminal graphs".
- Adamjan, V. M. 550: On the theory of canonical differential operators in Hilbert space.
- Adamović, Dušan D. 4446: Sur une classe d'équations fonctionnelles linéaires. 4500: Généralisations de quelques théorèmes de A. Zygmund, B. Sz. Nagy et R. P. Boas. II.
- Adams, J. F. 5874: Correction to: "On the groups  $J(X)$ . IV".
- Adams, John. 4103: (with Porter, A. Duane) Similarity and orthogonal similarity in a finite field.
- Adams, R. 4281: (with Aronszajn, N. and Smith, K. T.) Theory of Bessel potentials. II.
- Adams, Robert A. 3349: The Rellich-Kondrachov theorem for unbounded domains. 4599: A note on Fourier transforms and imbedding theorems.
- Adati, Tuzi. 3476: (with Yamaguchi, Seiichi) On Riemannian spaces admitting an intersecting field of  $m$ -planes.
- Adler, Alfred. 867: The second fundamental form of a Kahler metric.
- Adnađević, Dušan. 4788: Connections between certain combinatorial dimensions of topological spaces. 6918: The dimension  $dm$  for topological spaces.
- Adnađević, D. See Adnađević, Dušan.
- Adrianova, L. Ja. 3768: The distribution of roots of the stability polynomial for Störmer's method.
- Affn, A. A. 1040: (with Elashoff, R. M. and Langley, P. G.) An investigation into the small sample properties of a two sample test of Lehmann's.
- Agahanov, S. A. 478: (with Natanson, G. I.) The Lebesgue function of Fourier-Jacobi sums.
- Agal'cev, A. V. 6046: (with Sapagovas, M. P.) A solution of the minimal surface equation by the method of finite differences.
- Agazzi, Evandro. 3917: L'aritmetica come strumento di ricerca logico-matematica.
- Aggarwal, H. R. 2398: (with Bradley, Lee C.; Ablow, C. M.; Wood, Van E. and Glasser, M. L.) Table errata.
- Aggarwal, Nand Lal. 5948: Deux théorèmes de convergence sur les chaînes à liaisons complètes.
- Aggarwal, Satish K. 3745: Transference theorems in the field of formal power series.
- Agmon, Shmuel. 4430: Asymptotic formulas with remainder estimates for eigenvalues of elliptic operators.
- Agranovič, M. S. 1791: Positive boundary value problems for certain first order systems. 4391: Positive boundary value problems for first order pseudodifferential operators. 3181: (with Suhorutčenko, V. V.) The necessity of the algebraic parabolicity conditions of nonstationary problems.
- Agudo, F. R. Dias. See Dias Agudo, F. R.
- Ahlberg, J. H. 600: (with Nilson, E. N.) Orthogonality properties of spline functions. 661: (with Nilson, E. N. and Walsh, J. L.) Extremal, orthogonality, and convergence properties of multidimensional splines. 5650: (with Nilson, E. N. and Walsh, J. L.) Cubic splines on the real line.
- Ahlswede, Rudolf. 7207: Beiträge zur Shannonschen Informationstheorie im Falle nichtstationärer Kanäle.
- Ahmad, Manzoor. 6420: On polynomials with real zeros.
- Ahmad, Z. U. 6674: On the absolute Nörlund summability factors of a Fourier series.
- Ahmedov, K. T. 2000: (with Gasanov, K. K.) A calculus of variations problem for an ordinary differential equation involving restraints.
- Ahmedov, Š. A. 1940: Existence and uniqueness theorems of solutions for a certain class of integro-differential Ljapunov-Schmidt equations. 1941: The Cauchy problem for a class of Ljapunov-Schmidt integro-differential equations. 723: (with Hasanov, R. T.) A certain class of nonlinear integro-differential equations.
- Ahn, Jae Koo. 2147: A note on adjoint Kaehlerian manifold.
- Aigner, Alexander. 2652: Die diophantische Gleichung  $x^2 + 4D = y^2$  im Zusammenhang mit Klassenzahlen.

- Aigner, Martin. 2625: On the tetrahedral graph.
- Aikawa, Sansō. 629: On linearizable second-order nonlinear difference equations.
- Ailam, Gedalia. 5905: On probability properties of measures of random sets and the asymptotic behavior of empirical distribution functions.
- Aitchison, J. 1096: (with Dunsmore, I. R.) Linear-loss interval estimation of location and scale parameters.
- Aizawa, Sadakazu. 589: Some properties of convex functions and generalized solutions of the Hamilton-Jacobi equation.
- Aizenštat, V. S. 6199: (with Kravčuk, D. N.) On the question of obtaining an extremum of a linear form on the set of all complete cycles.
- Ajgaonkar, S. G. Prabhu. See Prabhu Ajgaonkar, S. G.
- Akagawa, Yasumasa. 185: On the number of fundamental relations with respect to minimal generators of a  $p$ -group.
- Akaike, Hirotugu. 5997: On the use of an index of bias in the estimation of power spectra.
- Akbar-Zadeh, Hassan. 4760: Sur quelques théorèmes issus du calcul des variations.
- Akcoglu, M. A. 6434: Pointwise ergodic theorems. 369: (with Sharpe, R. W.) Ergodic theory and boundaries.
- Akemann, Charles A. 3363: Sequential convergence in the dual of a  $W^*$ -algebra. 4626: Interpolation in  $W^*$ -algebras.
- Akiba, Tadatoshi. 2260: On the homotopy type of  $PL_2$ .
- Akō, Kiyoshi. 5459: Subfunctions for ordinary differential equations. II.
- Ako, Mitsue. 3454: Submanifolds of a Kählerian manifold.
- Aksent'ev, L. A. 4264: Exact estimates for functions harmonic in the disk.
- Akulenko, L. D. 2488: Resonance motions in an essentially nonlinear system with one degree of freedom, in the critical case.
- Akutowicz, E. J. 573: Sur certaines équations d'évolution.
- Al-Amiri, Hassoon S. 390: The  $a$ -points of Faber polynomials.
- Alamo, Juan Béjar. See Béjar Alamo, Juan.
- Alanen, J. D. 7051: (with Chakravarti, I. M. and Leone, F. C.) Relative efficiency of Mood's and Massey's two-sample tests against some parametric alternatives. 7052: (with Leone, F. C. and Chakravarti, I. M.) Exact power of some quick tests based on Mood's and Massey's statistics.
- Al'ber, S. I. 5817: Spaces of mappings into a manifold of negative curvature.
- Albert, A. A. 6826: The finite planes of Ostrom. 3485: (with Sandler, Reuben) ★An introduction to finite projective planes.
- Albrecht, J. 6047: Successive overrelaxation with hermitian finite-difference methods.
- Aleksandrov, A. D. 568: The maximum principle. 1756: Certain estimates for the derivative of the solution of the Dirichlet problem on the boundary.
- Aleksandrov, I. A. 1578: (with Gutljanskii, V. Ja.) Extremal problems for classes of analytic functions having a structural formula. 1598: (with Lebedev, N. A.) On a variational method in classes of functions representable by means of Stieltjes integrals.
- Aleksandrov, P. S. 5274: ★Introduction to the theory of groups. 19: (with Eršov, Ju. L.; Kargapolov, M. I.; Kuz'min, E. N.; Smirnov, D. M.; Talmanov, A. D. and Siršov, A. I.) Anatolii Ivanovič Mal'cev: Obituary. "SEE OLEKSIANAROVIC, I. M.
- Aleksandrovič, I. N. 6469: (with Palesov, R. O.) Integral representation of  $p$ -analytic functions with characteristic  $p$ -ality.
- Alekseevskii, D. V. 6868: Riemannian spaces with unusual holonomy groups. 6869: Compact quaternion spaces.
- Aleksidze, M. A. 2462: (with Arveladze, N. M.; Lekšvili, N. L. and Pertaja, K. V.) The solution of boundary value problems by means of nonorthogonal series.
- Alekajuk, V. N. 2930: Two theorems on the existence of a quasi-basis of a family of quasi-measures.
- Alenčyn, Ju. E. 1579: Univalent functions without common values in a multiply connected domain.
- Aleškevičienė, A. 3625: Large deviations for the number of appearances of a recurrent event. 3626: Letter to the editors. 3627: A central limit theorem for sums of discrete renewal processes.
- Aleškavičienė, A. See Aleškevičienė, A.
- Alexander, J. C. 4618: Compact Banach algebras.
- Alexandroff, P. S. See Aleksandrov, P. S.
- Alexits, G. 6675: Sur la caractérisation des fonctions dérivables par leur approximation trigonométrique.
- Alford, W. R. 2204: (with Sher, R. B.) A note on 0-dimensional decompositions of  $E^3$ .
- Alfsen, Erik M. 3313: Facial structure of compact convex sets. 4278: On the Dirichlet problem of the Choquet boundary.
- Alibekov, G. A. 428: (with Dzjadik, V. K.) Uniform approximation of functions of a complex variable on closed sets with corners.
- o. Aliev, I. Š. 1507: The power of the set of equationally complete subvarieties of a variety of symmetrically ternary quasigroups.
- Aliev, M. S. 4474: Best approximation of continuous functions in the metric  $C[a, b]$  by generalized polynomials.
- Aliev, R. M. 6658: An estimate of the error of cubature formulas.
- Alimzhanova, R. M. 3110: (with Zolotarev, Ju. G.) The invariance of the rotation numbers of a certain system of differential equations. 3111: (with Zolotarev, Ju. G.) The transformation of analytic systems of differential equations with quasi-periodic coefficients.
- Alin, J. S. 2834: (with Dickson, S. E.) Goldie's torsion theory and its derived functor.
- Alipov, Ju. M. 3449: (with Zalgaller, V. A.) An isoperimetric problem on the maximum of the moment of inertia.
- Allan, G. R. 6756: A form of local characterization of Gelfand transforms.
- Allan, Nelo D. 6379: Arithmetic subgroups of some classical groups.
- Allenby, R. B. J. T. 4171: On amalgams of nilpotent groups.
- Alling, David W. 1026: Correction to: "Closed sequential tests for binomial probabilities". 2385: Tests of relatedness.
- Almamedov, M. S. 4525: Asymptotic formulas for the solution of second order linear integro-differential equations on the half axis.
- Almeida Costa, A. 2818: (with Noronha Galvão, M. L.) Sur le demi-anneau des nombres naturels.
- Almgren, F. J., Jr. 837: Existence and regularity almost everywhere of solutions to elliptic variational problems among surfaces of varying topological type and singularity structure.
- Alo, R. A. 3527: (with Shapiro, H. L.) A note on compactifications and semi-normal spaces.
- Alpár, László. 4497: On the transformations of absolutely convergent Fourier series.
- Alperin, J. L. 289: The construction and characterization of some classes of finite groups. 1481: A convergence theorem for factorizable groups.
- Al-Salam, W. A. 3965: (with Carlitz, L.) Corrigendum to: "Some functions associated with the Bessel functions".
- Alspach, Brian. 3964: (with Goldberg, Myron and Moon, J. W.) The group of the composition of two tournaments.
- Amankulov, T. 4526: Approximate solution of a system of integro-differential equations by means of majorant-minorant functions.
- d'Ambly, Carl-Günter. 6132: Minimalströme auf Netzwerken.
- Amerbaev, V. M. 1122: (with Džaembaev, R. T.) A class of functions of the type of Ju. N. Rabotnov's special function.
- Ames, W. F. 582: (with Jones, S. E.) Integrated Lagrange expansions for a Monge-Ampère equation. 5446: (with Jones, S. E.) Similarity variables and first integrals of ordinary differential equations.
- Amice, Yvette. 6261: Interpolation  $p$ -adique.
- Aminov, Ju. A. 828: Divergence properties of the curvatures of a vector field and of a family of surfaces.
- Amir, D. 4562: (with Lindenstrauss, J.) The structure of weakly compact sets in Banach spaces.
- Amir-Moéz, A. R. 224: On projection of measure matrices. 4095: On pseudo-proper values of a linear transformation.
- de Amorim, José Bayolo Pacheco. See Pacheco de Amorim, José Bayolo.
- Ananda-Rau, K. See Rajagopal, C. T., #6152.
- Anastasio, S. 4627: Non-normal abelian subalgebras.
- Anděl, Jiří. 3355: Local asymptotic power and efficiency of tests of Kolmogorov-Smirnov type.
- Andellé, Tatinir P. 4988: A certain form of the differential equation of motion of a nonholonomic system without constraint multipliers. 7115: (with Aumann, G.; Bauer, F. L.; Bulirsch, R.; Künzi, H. P.; Rutishauser, H.; Samelson, K.; Sauer, R. and Stoer, J.) ★Mathematische Hilfsmittel des Ingenieurs. Teil III.
- Andenaes, P. R. 6906: Note on metrization.

- Andersen, Erling B. 4899: On partial sufficiency and partial ancillarity.
- Anderson, B. D. O. 2546: (with Moore, J. B.) A generalization of the Popov criterion.
- Anderson, C. T. 6337: (with Outcalt, D. L.) On simple anti-flexible rings.
- Anderson, D. W. 6924: (with Hodgkin, Luke) The  $K$ -theory of Eilenberg-MacLane complexes.
- Anderson, Douglas R. 3533: (with Jensen, J. A.) Semi-continuity on topological spaces.
- Anderson, G. D. 408: The coefficients of quasiconformality of ellipsoids. 3058: Inequalities for elliptic functions.
- Anderson, I. 6235: On the divisors of a number.
- Anderson, J. M. 417: Integral functions of exponential type.
- Anderson, Larry R. 5488: (with Leighton, Walter) Liapunov functions for autonomous systems of second order.
- Anderson, R. D. 5847: (with Bing, R. H.) A complete elementary proof that Hilbert space is homeomorphic to the countable infinite product of lines.
- Andersson, Karl Gustav. 6593: Analyticité des solutions élémentaires.
- André, J. 2528: Über einige spezielle Lernfolgen in allgemeinen Zweipersonenspielen.
- André, Michel. 5265: Cohomologie des algèbres commutatives topologiques.
- Andreev, V. I. 3304: The weak closure of the surface of a convex set in a linear topological space. 5711: The operator of the identity transformation in the space  $C(0, 1)$ .
- Andreeva, V. A. 1632: (with Čevakili, V. M.) Some inequalities of the type of V. A. Markov's inequalities.
- Andreian Cazacu, Gabriela. 5075: (with Cristescu, Romulus) Alexandru Ghika (1902-1964).
- Andrews, George E. 1334: On partition functions related to Schur's second partition theorem. 4042: A new generalization of Schur's second partition theorem.
- Andrews, P. B. 51: ★A transfinite type theory with type variables.
- Andrianov, A. N. 158: Shimura's hypothesis for Siegel's modular group of genus 3.
- Andrunakievich, V. A. 4136: (with Rjabuhin, Ju. M.) The existence of the Brown-McCoy radical in Lie algebras. 6320: (with Rjabuhin, Ju. M.) Rings without nilpotent elements, and completely prime ideals.
- Anfert'eva, E. A. 2704: A generalized Riemann equation in the theory of Dirichlet series.
- Ang, D. D. 6407: (with Daykin, D. E.) Some fixed point theorems and convolution equations.
- Ang, S. L. 94: (with Teh, H. H.) Finite homogeneous auto-extensions of graphs.
- Angel, Edward. 6048: Discrete invariant imbedding and elliptic boundary-value problems over irregular regions. 7098: Dynamic programming and linear partial differential equations.
- Angelitch, T. P. See Andelló, Tatmir P.
- Anger, Gottfried. 6474: ★Funktionalanalytische Betrachtungen bei Differentialgleichungen unter Verwendung von Methoden der Potentialtheorie. Teil I.
- Anikst, T. L. 3199: Stabilization of the solutions of a mixed problem for a certain class of polyharmonic equations.
- Anisimova, E. P. 4703: (with Solnceva, T. V.) Certain questions on the synthetic theory of four-dimensional space.
- Ankeny, N. C. 2721: (with Chowla, S.) Diophantine equations in cyclotomic fields.
- Anosov, D. V. 370: (with Sinai, Ja. G.) Certain smooth ergodic systems.
- Ansaloni, Augusto. 1687: Sulla costruzione, per via approssimata, di una soluzione periodica, di periodo assegnato, per un particolare problema non-lineare di oscillazioni forzate.
- Anselone, P. M. 796: Collectively compact approximations of integral operators with discontinuous kernels. 3390: (with Palmer, T. W.) Collectively compact sets of linear operators. 3391: (with Palmer, T. W.) Spectral analysis of collectively compact, strongly convergent operator sequences.
- Anshel, Michael. 1415: (with Clay, James R.) Planarity in algebraic systems.
- Ansoerg, R. 6041: Konvergenz von Mehrschrittverfahren zur Lösung halblinärer Anfangswertaufgaben.
- Antelman, G. R. 1154: (with Russell, C. B. and Savage, I. R.) Surveillance problems: Two-dimensional with continuous surveillance.
- Antohin, Ju. T. 6774: Incorrect problems in Hilbert space and stable methods of solving them.
- Antoneev, S. N. 592: (with Monahov, V. N.) Boundary value problems with discontinuous boundary conditions for quasilinear elliptic systems of  $2m$  ( $m \geq 1$ ) first order equations.
- Aparo, Enzo. 4089: ★Introduzione al calcolo delle matrici.
- Apatenok, R. F. 1484: The number of classes of conjugate maximal irreducible nilpotent subgroups in the full linear group over a finite field.
- Apollonius of Perga. See Ver Eecke, Paul, #6156.
- Apostol, C. 3379: Propriétés spectrales des couples des opérateurs dans des espaces de Banach. 4645: Sur les opérateurs scalaires généralisés. 4646: Some spectral properties of a couple of operators on a Banach space. 6785: A theorem on invariant subspaces. 6786: Restrictions and quotients of decomposable operators in a Banach space.
- Apostol, Tom M. 807: Ptolemy's inequality and the chordal metric.
- Apostolatos, N. 4954: (with Kulisch, U. and Nickel, K.) Ein Einschliessungsverfahren für Nullstellen.
- Appel, K. I. 6385: (with Djorup, F. M.) On the equation  $x_1 x_2 \dots x_n = 1^n$  in a free semigroup. 6176: (with McLaughlin, T. G.) On properties of regressive sets.
- Applying, William D. L. 1549: An extended notion of refinement-unboundedness. 2931: A note on the finite additivity of certain set functions. 4227: Integral representations and refinement-unboundedness.
- Aprile, Giuseppe. 3909: Su talune restrizioni nell'uso dei simboli per la costruzione dei grafi semantici.
- Åqvist, Lennart. 6163: "Next" and "ought" alternative foundations for von Wright's tense-logic, with an application to deontic logic.
- Arai, Masaharu. 5547: On the essential spectrum of the many-particle Schrödinger operator with combined Zeeman and Stark effect.
- Arakeljan, N. U. 3001: A problem of Nevanlinna.
- Aranson, S. H. 1732: The absence of non-closed, Poisson stable half trajectories and trajectories, doubly asymptotic to a double limit cycle, for dynamical systems of the first degree of structural instability on orientable two-dimensional manifolds.
- Arató, Mátyás. 3645: On the statistical examination of continuous state Markov processes. I. 5998: On the statistical examination of continuous state Markov processes. II. 5999: On the statistical examination of continuous state Markov processes. III.
- Arbib, Michael. 1199: Realization of stochastic systems.
- Arena, Marina. 2865: Su di una generalizzazione del sottogruppo di Hughes.
- Arékin, G. Ja. 2932: (with Jaghimuradov, S.) On convergence of absolutely continuous functions and their derivatives. II. 2933: (with Klimkin, V. M.) A generalization of Vitali's theorem on passage to the limit under the integral sign.
- Arezzo, M. 203: (with Greco, S.) Sul gruppo delle classi di ideali.
- Argémi, José. 1696: Sur un système dynamique admettant une singularité de type cuspidal. Application à l'équation différentielle de A. J. Lerner. 3095: Sur le nombre de régions nodales fermées appartenant à un point singulier multiple.
- Argunov, B. I. 5769: (with Skornjakov, L. A.) ★Configurational theorems.
- Arhangel'skii, A. V. 3534: Mappings and spaces. 4768: A characterization of very  $k$ -spaces.
- Arhangel'skij, A. See Arhangel'skii, A. V.
- Arhipov, B. M. 6522: The Green's matrix of a periodic boundary value problem for a system of two second order linear differential equations.
- Arimizu, Tsuyoi. 7162: Bottleneck processes.
- Arkeryd, Leif. 569: On the  $L^p$  estimates for elliptic boundary problems.
- Arkin, Joseph. 140: A note on a theorem of Jacobi.
- Arkowitz, M. 5868: (with Curjel, C. R.) On maps of  $H$ -spaces.
- Arlotti, Luisa. 4233: Una condizione di ergodicità per l'energia cinetica. 4232: (with Forte, B.) The classical ergodic problem and the restricted one: A general solution.
- Armstrong, Steve. 5859: Concerning cellular decompositions of 3-manifolds that yield 3-manifolds.
- Armitage, J. V. 192: Algebraic functions and an analogue of the



- geometry of numbers: The Riemann-Roch theorem. 2698: The Thue-Siegel-Roth theorem in characteristic  $p$ . 2727: Corrigendum and addendum: "Euclid's algorithm in algebraic function fields".
- Armitage, Peter. 2378: (with Myers, Max H. and Schneiderman, Marvin A.) Boundaries for closed (wedge) sequential  $t$  test plans.
- Arnaudov, V. I. 4132: Topologizations of the ring of integers.
- Arnese, Giuseppe. 5539: Proprietà dei potenziali relativi ad un'equazione parabolica di ordine  $2m$ , con densità in una classe di Morrey.
- Arnold, Barry C. 2323: A modification of a result due to Moran. 7029: Parameter estimation for a multivariate exponential distribution.
- Arnold, Hans-Joachim. 3421: Über eine Klasse von Spenerischen Quasimoduln.
- Arnold, Jimmy T. 2741: (with Gilmer, Robert) Idempotent ideals and unions of nets of Prüfer domains.
- Arnold, Leslie K. 2947: On  $\epsilon$ -finite invariant measures.
- Arnold, Ludwig. 699: (with Michaliecek, Johannes) On the norm of stable measures.
- Arnold, Richard F. 3870: (with Richards, Donald L.) Monotone convergence algorithms.
- Arnold, V. I. 2343: Singularities of smooth mappings.
- Aronszajn, N. 1951: (with Gagliardo, E.) Interpolation spaces and interpolation methods. 4281: (with Adams, R. and Smith, K. T.) Theory of Bessel potentials. II.
- Arraut, J. L. 3591: (with George, K.) Vector fields over certain spheres.
- Arregui, J. 4867: Some theorems on sheaves. 5907: Proper fibration of an  $n$ -dimensional differentiable variety  $X$ .
- Arscott, F. M. 1715: The Whittaker-Hill equation and the wave equation in paraboloidal co-ordinates. 510: (with Sleeman, B. D.) Multiplicative solutions of linear differential equations.
- Arsen'ev, A. A. 1792: Scattering of a plane wave on a singular potential.
- Arsenin, V. Ja. 6710: (with Ivanov, V. V.) The solution of certain convolution type integral equations of the first kind by the method of regularization.
- Arnsve, Maynard G. 1572: Some boundary properties of the Riemann mapping function.
- Artin, M. 6290: (with Mazur, B.) Homotopy of varieties in the étale topology.
- Artjušenko, L. M. 1923: Conditions for the existence of an almost periodic solution of a certain class of integro-differential equations.
- Artzy, R. 2974: Pascal's theorem on an oval.
- Arveladze, N. M. 2462: (with Aleksidze, M. A.; Lektsvili, N. L. and Pertaja, K. V.) The solution of boundary value problems by means of nonorthogonal series.
- Arzollás, Henri. 7133: Turbulence relativiste des fluides incompressibles; équations du mouvement moyen.
- Asada, Akira. 930: Elliptic semi-complexes.
- Asano, Kiyoshi. 705: Notes on Hilbert transforms of vector valued functions in the complex plane and their boundary values.
- Ash, M. 7199: Application of dynamic programming to stochastic time optimal control.
- Ash, Robert. 5049: ★Information theory.
- Ashford, J. B. 1957: (with Read, K. L. Q.) A system of models for the life cycle of a biological organism.
- Askey, Richard. 3750: (with Fitch, James) Positivity of the Cotes numbers for some ultraspherical abscissas. 6662: (with Fitch, James and Gasper, George) On a positive trigonometric sum.
- Aslanjan, A. G. 3092: (with Burenkov, V. I.) Refinement of a theorem of V. V. Morozov. 6517: (with Burenkov, V. I.) The integrability in quadratures of certain systems of linear differential equations.
- Asplund, Edgar. 6754: Fréchet differentiability of convex functions.
- Asral, Bediz. See Seminskii, I. S., #5966.
- Assakul, Kwanchal. 6093: (with Proctor, Charles H.) Testing independence in two-way contingency tables with data subject to misclassification.
- Astin, J. 1389: Extension of the formula for the  $N$ th power of a square matrix to negative and fractional values of  $N$ .
- Atchison, T. A. 4941: (with Gray, H. L.) Nonlinear transformations related to the evaluation of improper integrals. II. 4942: (with Gray, H. L.) The generalized  $G$ -transform.
- Athans, Michael. 3858: The matrix minimum principle.
- Atherton, C. R. 2647: (with Kent, D. C.) The order topology in a bi-compactly generated lattice.
- Atiyah, M. F. 3584: Bott periodicity and the index of elliptic operators.
- Atkin, A. O. L. 1596: Explicit gap series at cusps of  $\Gamma(p)$ . 2690: Multiplicative congruence properties and density problems for  $p(n)$ .
- Atkinson, J. D. 5953: (with Caughey, T. K.) Spectral density of piecewise linear first order systems excited by white noise.
- Atkinson, Kendall E. 1853: On the order of convergence of natural cubic spline interpolation.
- Aubin, Jean-Pierre. 3172: Approximation des espaces de distributions et des opérateurs différentiels. 6651: Interpolation et approximation optimales et "spline functions".
- Aubin, Thierry. 6870: Fonction de Green du laplacien. 6871: Inégalités vérifiées par le laplacien de la distance géodésique pour les variétés riemanniennes. 6872: Sur les valeurs propres du laplacien.
- Augé, Juan. 484: Continuation of solutions of integrable systems.
- Augé Farreras, Juan. See Augé, Juan.
- Aull, C. E. 872: Classification of topological spaces. 2169: Sequences in topological spaces. 3498: A certain class of topological spaces. 3499: Remarks on countable paracompactness.
- Aumann, Georg. 1533: Über lateral konvergente Funktionen. II. 7115: (with Andelić, T. P.; Bauer, F. L.; Bulirsch, R.; Künzi, H. P.; Rutishauser, H.; Samelson, K.; Sauer, R. and Stoer, J.) ★Mathematische Hilfsmittel des Ingenieurs. Teil III.
- Auslander, L. 344: (with Brezin, J.) Almost algebraic Lie algebras.
- Auslander, Maurice. 4051: (with Brumer, Armand) Brauer groups of discrete valuation rings. See also Anneaux de Gorenstein, et torsion en algèbre commutative, #1435.
- Auslender, Alfred. 6812: Algorithme de recherche des points stationnaires d'une fonctionnelle dans un espace vectoriel topologique. Application à un problème de contrôle à évolution non linéaire.
- Avanesov, E. T. 1312: The representation of numbers by binary cubic forms of positive discriminant. 4001: Remarks on the problem of W. Mnich. 6241: On the question of a certain theorem of Skolem.
- Avanissian, Vazgain. See Avanissian, Vazguen.
- Avanissian, Vazguen. 5419: (with Gay, Roger) Sur les fonctions entières de plusieurs variables.
- Avantaggiati, Antonio. 2015: Alcuni teoremi sulle trasformazioni lineari negli spazi di Banach.
- Avdeeva, L. I. 2521: (with Zuhovickii, S. I.) ★Linear and convex programming. 2522: (with Zuhovickii, S. I.) ★Linear and convex programming. 2523: (with Zuhovickii, S. I.) ★Linear and convex programming.
- Avdeyeva, L. I. See Avdeeva, L. I.
- Avdonin, N. I. 4324: Certain tests for the existence and absence of closed trajectories of a certain system of differential equations.
- Averbuch, B. G. See Averbuh, B. G.
- Averbuh, B. G. 6285: (with Safarevič, I. R.; Vainberg, Ju. R.; Žiščenko, A. B.; Manin, Ju. I.; Moisezon, B. G.; Tjurina, G. N. and Tjurin, A. N.) ★Algebraische Flächen.
- Averna, Alfonso. 3101: Sulle maggiorazioni delle soluzioni dei sistemi differenziali lineari, omogenei, del primo ordine.
- Avez, A. 5895: Une généralisation du théorème d'équipartition de Weyl. 6944: Propriétés ergodiques des endomorphismes dilatants des variétés compactes.
- Avhadiev, F. G. 4247: (with Gaiduk, V. N.) An application of close-to-convex functions to inverse boundary value problems.
- Avila, Geraldo S. S. 4672: Spectral theory for the acoustic equation in an inhomogeneous medium. 6576: (with Gilbert, R. P.) On the analytic properties of solutions of the equation  $\Delta u + zu_x + yu_y + c(r)u = 0$ .
- Avramescu, C. 6523: Differential systems with non-homogeneous limit conditions.
- Ax, James. 5187: The elementary theory of finite fields.
- Axelband, Elliot I. 7189: The structure of the optimal tracking problem for distributed-parameter systems. 7190: A solution to the optimal pursuit problem for distributed parameter systems.
- Ayoub, Raymond G. 1342: A note on the class number of imaginary quadratic fields. 1343: On the coefficients of the zeta function of an imaginary quadratic field.
- Azéma, Jacques. 5931: (with Dufo, Marie and Revuz, Daniel) Théorèmes limites pour les processus de Markov récurrents.
- Azharov, T. A. 4855: (with Šahaldarova, N.) Uniform estimates in global limit theorems.

- Afymudinov, T. See Afymudinov, T.
- Afymudinov, T. 5534: The solution of certain boundary value problems by the method of fundamental functions.
- Ba, Boubakar. 5809: Structures presque complexes, structures conformes et dérivations.
- Babadjanov, S. B. 1866: On the question of the reversibility of the fundamental problems of approximation theory.
- Babaev, A. A. 390: A singular integral with continuous density.
- Babaev, G. 178: Further development of the ergodic method. 2709: Solution in sectors of a generalized Hardy-Littlewood problem.
- Babakhanian, A. 5190: On primitive elements in differentially algebraic extension fields.
- Babenko, K. I. 6067: (with Voskresenskii, G. P.; Ljubimov, A. N. and Rusanov, V. V.) ★Three-dimensional flow of ideal gases around smooth bodies.
- Babič, V. M. 3894: (with Bakel'man, I. Ja.; Kiselev, A. I. and Maz'ja, V. G.) Solomon Grigor'evič Mihlin: On the sixtieth anniversary of his birth.
- Baburin, O. V. 1065: (with Lebedev, V. I.) The computation of tables of roots and weights of Hermite and Laguerre polynomials for  $n = 1(1)101$ .
- Babuj, V. 6577: (with Slimac, O.) System of equations with cyclic partial derivatives.
- Bach, W. 6476: On constancy of potentials on supports of measures.
- Bachés, F. 3454: Sur les cercles  $W$ . 4701: Sur les cycles de Laplace de période quatre, tous les côtés engendrant des congruences cycliques. 5787: Sur les systèmes hypercycliques. 6841: Sur les systèmes  $K$  de Demoulin.
- Backus, George E. 3028: Application of a non-linear boundary-value problem for Laplace's equation to gravity and geomagnetic intensity surveys.
- Bacon, Philip. 5848: Extending a complete metric.
- Bacry, H. 5006: ★Leçons sur la théorie des groupes et les symétries des particules élémentaires.
- Badaljan, M. V. 1861: Asymptotic values of best approximations of functions having a complex of essential singular points. 1862: Asymptotic values of best approximations of functions which have a complex of algebraic critical points. 4268: Inverse problems of best approximations.
- Bădescu, Radu. See Bădescu, Radu.
- Bădescu, Radu. 5337: (with Naneș, Cornelia and Sebeșan, Ioan) Intégrales riemanniennes généralisées dans les espaces  $R^n$ .
- Badrikian, Albert. 962: Sur quelques questions de la théorie des processus stochastiques linéaires.
- Baer, R. M. 3900: (with Brock, P.) Natural sorting over permutation spaces.
- Báez-Duarte, Luis. 4859: Another look at the martingale theorem.
- Bag, Amulya Kumar. 2562: Trigonometrical series in the *Karaṇapad-dhati* and the probable date of the text.
- Bagemihl, F. 419: Generalizations of two theorems of Meier concerning boundary behavior of meromorphic functions. 1569: A condition for analytic continuability. 5397: (with McMillan, J. E.) Radii of uniform boundedness and indetermination of holomorphic functions, and examples in conformal mapping of Jordan regions.
- von Bahr, Bengt. 3628: Multi-dimensional integral limit theorems.
- Bahtin, I. A. 3314: The extension of positive linear functionals. 4555: On the problem of extending positive linear functionals.
- Bahvalov, N. S. 565: The asymptotic behavior for small  $\varepsilon$  of a solution of the equation  $u_\varepsilon + (\varphi(u))_\varepsilon = \varepsilon u_{xx}$ , corresponding to a rarefaction wave, in the case of a degeneracy. 1076: Optimal speed of integration of analytic functions. 3731: Optimal methods of solving problems. 2437: (with Vasil'eva, L. G.) The calculation of integrals of oscillatory functions by interpolation at the Gaussian quadrature nodes.
- Bakhev, Ivan. 298: Finite cyclic groups.
- Balguzin, F. Š. 4422: A boundary value problem for an equation of mixed type with mixed boundary conditions.
- Balley, Norman T. J. 1055: Stochastic birth, death and migration processes for spatially distributed populations. 1056: A perturbation approximation to the simple stochastic epidemic in a large population.
- Balley, Paul B. 3772: (with Shampine, L. F.) On shooting methods for two-point boundary value problems. 6542: (with Shampine, L. F.) Concerning periodic solutions of  $y'' + f(t, y, y') = 0$ . 6524: (with Shampine, Lawrence F. and Waltman, Paul E.) ★Nonlinear two point boundary value problems.
- Baillette, Aimée. 4257: Transformées de Laplace-Borel de produits canoniques.
- Bain, Lee J. 7035: (with Thoman, Darrel R.) Some tests of hypotheses concerning the three-parameter Weibull distribution.
- Bainov, D. D. 3112: Averaging in certain systems of ordinary differential equations. 3142: An algorithm for finding approximate solutions for systems of ordinary differential equations with a small parameter by the highest derivatives. 4351: A method for the asymptotic integration of the equations of motion of a quasilinear non-autonomous system with many degrees of freedom. 5473: Periodic oscillations of a non-autonomous quasilinear system with  $n$  degrees of freedom in the presence of resonance frequencies. 5506: A formula for the product of  $n$  power series. 5472: (with Partinova, Neli) A method of solving an autonomous quasilinear system with  $n$  degrees of freedom having a group of commensurable frequencies. 4332: (with Plotnikova, Galina) On the stability of single-frequency periodic solutions of non-autonomous quasilinear systems with several degrees of freedom. 456: (with Sopolov, N. N.) A certain  $n$ th order linear differential equation.
- Balocchi, Claudio. 1819: Soluzioni ordinarie e generalizzate del problema di Cauchy per equazioni differenziali astratte lineari del secondo ordine in spazi di Hilbert.
- Balramov, R. A. 5053: On the question of functional completeness in many-valued logic. 5084: Sheffer functions in many-valued logic.
- Balramov, S. 5468: The structure of the singular points for certain differential equations in three-dimensional space. 4326: (with Šaripov, Š. R.) The simultaneous existence of exceptional directions.
- Bakel'man, I. Ja. 603: Hypersurfaces with given mean curvature and quasilinear elliptic equations with strong nonlinearities. 2139: Quasilinear elliptic equations and the construction of a hypersurface with given mean curvature. 2097: (with Verner, A. L.) The disposition in space of curves with periodic curvature and torsion. 3481: (with Verner, A. L.) The construction, by means of the mean curvature, of a surface with given boundary which has a single-valued non-convex projection. 3894: (with Babič, V. M.; Kiselev, A. I. and Maz'ja, V. G.) Solomon Grigor'evič Mihlin: On the sixtieth anniversary of his birth.
- Baker, Alan. 4005: Contributions to the theory of Diophantine equations. I. On the representation of integers by binary forms. 4006: Contributions to the theory of Diophantine equations. II. The Diophantine equation  $y^2 = x^3 + k$ .
- Baker, I. N. 1599: Repulsive fixpoints of entire functions.
- Baker, Kirby A. 123: Free vector lattices.
- Baker, M. J. C. 827: Some Helly-type theorems generalizing a result of B. C. Rennie.
- Baker, R. A. 4374: (with Desoer, C. A.) Asymptotic stability in the large of a class of single-loop feedback systems.
- Bakri, M. M. 7145:  $SO(n)$ -symmetric field equations.
- Baktavatsalou. 6084: Sur certaines généralisations de l'équation d'onde de Klein-Gordon et leurs transformations par le groupe conforme.
- Bakušinskii, A. B. 2481: Certain properties of regularizing algorithms. 3371: (with Strahov, V. N.) The solution of certain integral equations of the first kind by the method of successive approximations.
- Bal, L. 1108: Nomograms of genus zero with projective scales.
- Balaam, L. N. 3703: (with Robinson, J.) Variance heterogeneity and error correlation in factorial experiments.
- Balaban, T. 576: On the Cauchy problem for pseudodifferential hyperbolic operators. 3135: The regularity properties for a certain class of pseudodifferential hyperbolic operators.
- Balachandran, V. K. 4137: On the uniqueness of the inner product topology in a semi-simple  $L^*$ -algebra.
- Balažne, D. O. 5866: Homology  $K$ -groups over a pair of coefficient groups.
- Balakrishnan, A. V. 3859: On a new computing technique in optimal control theory and the maximum principle. 6584: (with Lions, J. L.) State estimation for infinite-dimensional systems.

- Balakrishnan, R.** 5769: On the Apollonian hyperbolas of a pencil of conics.
- Baleh, H. T.** 7058: (with Dale, J. C.; Eddy, T. W. and Lauver, R. M.) Estimation of the mean of a stationary random process by periodic sampling.
- Baleoni, Giorgio.** 3960: Singrammi commutati di singrammi orientati. Baldassarri Ghizzo, S. 218: (with Margaglio, C. and Millevoi, T.) ★Introduzione ai metodi della geometria algebrica.
- Baldwin, J. F.** 2550: (with Sims-Williams, J. H.) An on-line control scheme using a successive approximation in policy space approach.
- Ballitnev, M. A.** 5489: (with Efendiev, A. R.) The global asymptotic stability of a certain nonlinear system.
- Ball, Ralph W.** 5281: Indices of maximal subgroups of infinite symmetric groups.
- Ballantine, Charles S.** 4090: On the Hadamard product. 6300: Triangularizing matrices by congruence.
- Ballester, C.** See Ballester Pereyra, Concepción.
- Ballester Pereyra, Concepción.** 3751: †(with Pereyra, V.) On the construction of discrete approximations to linear differential expressions. 3752: †(with Pereyra, V.) Supplement to Bickley's table for numerical differentiation.
- Balslev, Erik.** 5012: (with Verbeure, André) States on Clifford algebras.
- Bambah, R. P.** 160: (with Woods, A. C.) Convex bodies with a covering property. 6838: (with Woods, A. C.) The covering constant for a cylinder.
- Banaschewski, B.** 4589: An algebraic characterization of  $C^*(R^n)$ .
- Banchoff, Thomas.** 921: Critical points and curvature for embedded polyhedra.
- Bandemer, Hans.** 6659: Erweiterung der Stekloffschen Sätze über mechanische Quadraturverfahren.
- Bandić, Ivan.** 4391: Sur une classe d'équations différentielles non-linéaires du deuxième ordre que l'on rencontre en physique théorique.
- Banerjee, K. S.** 2386: (with Federer, W. T.) On a special subset giving an irregular fractional replicate of a  $2^n$  factorial experiment.
- Banfi, Carlo.** 3136: Sull'approssimazione di processi non stazionari in meccanica non lineare.
- Băniceş, C.** 3990: (with Stănăşilă, O.) Some remarks on the finite morphisms.
- Bank, Steven.** 6515: On  $n$ th order equations having critical degree  $n-2$ .
- Banks, Dallas O.** 5548: Some inequalities for the fundamental frequency of a nonhomogeneous membrane. 2454: (with Kurowski, G. J.) Computation of eigenvalues of singular Sturm-Liouville systems.
- Banks, H. T.** 6564: Necessary conditions for control problems with variable time lags.
- Bantegnie, Robert.** 2176: Une notion de régularité dans les espaces métriques. 2177:  $\chi$ -régularité et compacité à distance finie. 5154: Le "problème des octaèdres" en dimension 5.
- Baouendi, Mohamed Salah.** 4398: Sur une classe d'opérateurs elliptiques dégénérés. 727: (with Goulaouic, Charles) Commutation de l'intersection et des foncteurs d'interpolation. 5549: (with Goulaouic, Charles) Étude de la régularité et du spectre d'une classe d'opérateurs elliptiques dégénérés.
- Barannik, L. F.** 4177: (with Gudivok, P. M.) Projective representations of finite groups over rings.
- Barataliev, K. B.** 3148: The approximate solution of a boundary value problem for a system of integro-differential equations with retarded argument. 5661: The approximate solution of integro-differential equations with deviating argument. 5662: The approximate solution of integro-differential equations with deviating argument.
- Barback, Joseph.** 62: An md-class of sets indexed by a regressive function. 63: Regressive upper bounds. 64: On recursive sets and regressive isols.
- Barbalin, E. A.** 501: Conditions for the existence of recurrent trajectories in dynamic systems with a cylindrical phase space. 515: ★Introduction to the theory of stability.
- Barbosa, Ruy Madsen.** See Madsen Barbosa, Ruy.
- Barbu, Viorel.** 1752: Solutions presque-périodiques pour un système d'équations linéaires aux dérivées partielles. 3188: Sur la propagation de l'analyticité des solutions des équations différentielles à coefficients constants.
- Barbut, M.** 2936: Intégrales et mesures: Introduction en vue du calcul des probabilités.
- Barillon, Victor.** 7135: Axi-symmetric inertial oscillations of a rotating ring of fluid.
- Barcus, W. D.** 5967: On a theorem of Massey and Peterson. 5877: On the complexes of Hirsch and Eilenberg-Moore.
- Bardos, C.** 4673: Approximation semi discrète de la solution d'une équation variationnelle, astreinte à vérifier des conditions aux limites dépendant du temps. 5722: Sur un théorème de perturbation d'équations d'évolution; application.
- Bariss, Erwin H.** 2416: Sylvester's identity and multistep integer-preserving Gaussian elimination.
- Barlow, Richard E.** 3708: Likelihood ratio tests for restricted families of probability distributions. 4930: (with Madansky, Albert; Proschan, Frank and Scheuer, Ernest M.) Statistical estimation procedures for the "burn-in" process.
- Barner, Klaus.** 4040: Zur Reziprozität quadratischer Charaktersummen in algebraischen Zahlkörpern.
- Barnes, Bruce A.** 2008: On the existence of minimal ideals in a Banach algebra.
- Barnes, E. S.** 6839: (with Dickson, T. J.) Corrigendum to: "Extreme coverings of  $n$ -space by spheres".
- Barnes, John L.** 7208: Information theoretic aspects of feedback control systems.
- Barnhill, Robert E.** 2438: An error analysis for numerical multiple integration. I. 6027: An error analysis for numerical multiple integration. II.
- Baron, G.** 4935: Bestimmung der Automorphismengruppe spezieller Klassen von Graphen.
- Barozzi, G. C.** 1793: Un Teorema del tipo di Liouville per una classe di equazioni paraboliche.
- de Barra, G.** 4628: An inner measure associated with a von Neumann algebra.
- Barrucand, Pierre.** 1661: Sur une formule générale de récurrence et quelques-unes de ses applications.
- Barotoli, Iacopo.** 4086: Sviluppi e applicazioni della teoria dei gruppi analitici.
- Bartš, M. Ja.** 1103: Certain iteration methods for solving nonlinear operator equations.
- Bartlett, M. S.** 1049: The spectral analysis of line processes.
- Bartlett, Noel S.** 2388: (with Govindarajulu, Zakkula) Some distribution-free statistics and their application to the selection problem.
- Bartolozzi, Federico.** 4140: Osservazioni relative al problema di estensione di quasioripi.
- Barton, D. E.** 3614: (with David, F. N.) Sequential occupancy with classification.
- Bartoszyński, R.** 983: A limit property of a certain branching process.
- Baruchel, G.** 5018: The group of timelike permutations.
- Barut, A. O.** 2498: (with Phillips, E. C.) Matrix elements of representations of non-compact groups in a continuous basis.
- Barvinok, E.** 5564: On some convergence tests for series and integrals.
- Basarab, A. S.** 2889: A class of WIP loops.
- Basevič, B. V.** 2964: The univalence of certain functions.
- Bagöze, Türkân.** 2958: On the radius of univalence of a polynomial.
- Baskakov, V. A.** 4488: The degree of approximation of differentiable functions by certain positive linear operators.
- Baškov, V. I.** 847: A complete series of identities for the second covariant derivatives of the curvature tensor.
- Basler, H.** 3713: Bestimmung kostenoptimaler Prüfpläne mittels des Mini-Max-Prinzips.
- Bas, J. I.** ★Cours de mathématiques. Tomes I, II. 6685: Fonctions admettant une fonction de corrélation donnée.
- Bässler, Gerhard.** 7092: Über die näherungsweise Lösung von Rand- und Anfangswertaufgaben bei gewöhnlichen Differentialgleichungen mittels elektronischer Digitalrechner.
- Basu, A. P.** 7059: On a generalized Savage statistic with applications to life testing.
- Basu, S. K.** 6057: On reduction of program schemes.
- Bather, J. A.** 1155: A diffusion model for the control of a dam. 2377: (with Chernoff, Herman) Sequential decisions in the control of a space-ship (finite fuel).



- Battaglia, Antonio. 2653: Impossibilità dell'equazione  $x^{2n} + y^{2n} = z^2$  quando  $z$  è divisibile per  $n$ .
- Battioni, Giacomino. 4439: Collegamenti fra un sistema alle differenze e un suo sistema differenziale limite.
- Bauer, F. L. 7066: Some aspects of scaling invariance. 7115: (with Andelić, T. P.; Aumann, G.; Bulirsch, R.; Künzi, H. P.; Rutishauser, H.; Samelson, K.; Sauer, R. and Stoer, J.) ★Mathematische Hilfsmittel des Ingenieurs. Teil III.
- Bauer, Heinz. 6477: Construction of Markov processes in axiomatic potential theory.
- Bauer, Karl Wilhelm. 1748: Über die Lösungen der inhomogenen elliptischen Differentialgleichung  $(1 + z\bar{z})^n w_{z\bar{z}} + en(n+1)w = \Phi(z, \bar{z})$ . 1770: Über eine Klasse homogener partieller Differentialgleichungen gerader Ordnung.
- Bauman, Steven F. 1457: Groups with  $p$ -length 1.
- Baumslag, Gilbert. 1449: More groups that are just about free. 2839: Products of abelian hopfian groups.
- Bavrin, I. I. 6480: On the theory of integral representations of holomorphic functions. 6481: General integral representations of holomorphic functions of several complex variables.
- Baxley, John V. 2036: The Friedrichs extension of certain singular differential operators. 5437: Extreme eigenvalues of Toeplitz matrices associated with Laguerre polynomials.
- Baxter, W. E. 2813: On the subring generated by the symmetric elements.
- Beals, Richard. 782: Operators in function spaces which commute with multiplications. 791: Classes of compact operators and eigenvalue distributions for elliptic operators.
- Beardon, A. F. 2986: The exponent of convergence of Poincaré series. 4457: On the behavior of a special series. 6442: The generalized capacity of Cantor sets.
- Beasley, L. B. 5233: (with Brenner, J. L.) Bounds for permanents, determinants, and Schur functions.
- Bebernes, J. W. 1688: (with Gaines, Robert) A generalized two-point boundary value problem. 4317: (with Gaines, Robert) Dependence on boundary data and a generalized boundary-value problem.
- Bechtel, Homer. 252: Nongenerators of rings.
- Beckenbach, Edwin. 2925: (with Bellman, Richard) ★An introduction to inequalities.
- Beckert, Herbert. 2051: Über eine bemerkenswerte Klasse gemischt-freier Variationsprobleme höherer Ordnung.
- Bector, C. R. 1164: Non-linear indefinite functional programming with non-linear constraints.
- Beekman, John A. 987: Research on the collective risk stochastic process.
- Beckmann, Wolfgang. 3237: Perfekte Integralverfahren. 387: (with Zeller, Karl) Singularitäten stetiger analytischer Funktionen.
- Begališvili, G. M. 800: Some problems of the mathematical theory of optimal control.
- Begovatov, E. A. 6803: Representation of the solution of a certain class of nonlinear operator equations.
- Behncke, Horst. 4660: Structure of certain nonnormal operators.
- Behrens, Ernst-August. 1398: ★Algebra.
- Beidleman, J. C. 2819: (with Cox, R. H.) Topological near-rings.
- Beinecke, Lowell W. 2633: (with Guy, Richard K.) The coarseness of the complete graph.
- Beiter, Sister Marion. 2670: Magnitude of the coefficients of the cyclotomic polynomial  $F_{p^m}(x)$ .
- Béjar Alamo, Juan. 1161: Mathematical theory of programming.
- Bekić, Hans. 1327: Über die Anzahl der Zahlen  $a^2 + b^2$  in einer arithmetischen Reihe großer Differenz.
- Bekišev, G. A. 2612: Inequalities for symmetric means.
- Belan, E. P. 3141: (with Mitropol'skii, Ju. O.) The construction of solutions of almost diagonal systems of linear differential equations by a method which guarantees accelerated convergence.
- Beleckii, A. Ja. 2330: A certain renewal process.
- Belinskaja, R. M. 1555: The existence of a derived automorphism with continuous spectrum.
- Beljaev, Ju. K. 3642: Bursts and shines of random fields. 4960: The number of exits across the boundary of a region by a vector random process. 993: (with Gnedenko, B. V. and Solov'ev, A. D.) On some stochastic problems of reliability theory.
- Beljaev, P. F. 1012: Distribution of the statistic of the most powerful criterion for two simple hypotheses in compound Markov chains.
- Beljakin, N. V. 30: The completeness of an arithmetic.
- Bellman, Richard. 547: Invariant imbedding and asymptotic behavior. 3839: Scattering processes and invariant imbedding. 2925: (with Beckenbach, Edwin) ★An introduction to inequalities. 5498: (with Richardson, John M.) Closure and preservation of moment properties. 6100: (with Kagiwada, H. and Kalaba, R.) Invariant imbedding and nonvariational principles in analytical dynamics. 3871: (with Detchmendy, D.; Kagiwada, H. and Kalaba, R.) On the identification of systems and the unscrambling of data. III. One-dimensional wave and diffusion processes.
- Belobrov, V. N. 4531: (with Imanaliev, M. I.) A class of linear homogeneous integro-differential equations (i.d.e.) with small coefficients for the higher derivatives: The case of multiple roots of the characteristic equations.
- Belousov, V. 4190: Some remarks on the functional equation of generalized distributivity.
- Belov, K. M. 4717: A certain property of a surface of constant mean curvature. 4718: Infinitesimal deformations of a toroidal surface of revolution.
- Belova, N. A. 1684: (with Ušijand, Ja. S.) The eigenfunction expansion of a singular boundary value problem for Legendre's equation.
- Beltrami, E. J. 3350: Another proof of Weyl's lemma.
- Belyaev, Yu. K. See Beljaev, Ju. K.
- Bender, Edward A. 5193: Characteristic polynomials of symmetric matrices. 6301: Classes of matrices and quadratic fields.
- Bender, Helmut. 2846: Endliche zweifach transitive Permutationsgruppen, deren Involutionen keine Fixpunkte haben.
- Benedek, A. 6998: (with Panzone, R.) A note on Haar series and Markoff processes.
- Benel, V. E. 976: Finite regular invariant measures for Feller processes.
- Bennett, Mary Katherine. 5132: A lattice characterization of convexity.
- Bennett, Morris M. 3770: (with Riley, James D. and McCormick, Emily) Numerical integration of variational equations.
- Benson, Donald C. 2090: Elementary solutions of variational problems. 2919: Nonconstant locally recurrent functions.
- Benveniste, Jacques E. 434: Projective solution of the Dirichlet problem for boundaries with angular points.
- Benvenuti, Pietro. 2314: Sul problema ergodico ristretto.
- Benz, Eduard. 5150: Über die Anzahl Darstellungen einer Zahl  $n$  durch gewisse quaternäre quadratische Formen: Beweise, welche auf Identitäten aus dem Gebiete der Thetafunktionen basieren.
- Benzécri, J.-P. 5985: Sur l'analyse factorielle des proximités. 5986: Sur l'analyse factorielle des proximités (suite).
- Beran, R. J. 3682: Testing for uniformity on a compact homogeneous space.
- Berecivini, Malca. 6620: (with Ciobanu, Liviu; Poteraşu, Florin; Oprea, Arsenie and Deleanu, Spiridon) Application of some classes of solutions to polyvibrating equations in the study of the dynamics of mechanisms and machines. I. 5430: (with Ciobanu, Liviu; Poteraşu Florin; Oprea, Arsenie and Triandaf, Ana) Nuove classi di funzioni spettanti ai sistemi funzionali alle derivate totali. I. Funzioni ipergeometriche generalizzate.
- Berdyšev, V. I. 5587: Connection between Jackson's inequality and a certain geometrical problem.
- Berechet, O. 1809: La représentation de Poisson et le problème de Cauchy pour l'équation bicalorique.
- Berens, Hubert. 5588: (with Butzer, Paul L.) ★Semi-groups of operators and approximation. 4481: (with Nessel, R. J.) Contributions to the theory of saturation for singular integrals in several variables. IV. Product kernels and  $n$ -parameter approximation.
- Berenstein, C. A. 6780: (with Cotlar, M.; Kerman, N. and Krén, P.) Some remarks on the Marcinkiewicz convexity theorem in the upper triangle.
- Berezanskii, Ju. M. 1963: Integral representation of positive definite functionals of Wightman type.
- Berezin, F. A. 2022: A certain representation of operators by means of functionals. 6085: A model of quantum field theory.
- Berg, I. D. 3279: (with Rajagopalan, M. and Rubel, L. A.) Uniform distribution in locally compact Abelian groups.

- Berger, C. A. 4629: (with Coburn, L. A.)  $C^*$ -algebras of translations and multipliers. 4661: (with Stampfli, J. G.) Norm relations and skew dilations.
- Berger, Melvyn S. 5726: Corrections to my paper: "A Sturm-Liouville theorem for nonlinear elliptic partial differential equations". 5544: (with Fife, Paul C.) Von Kármán's equations and the buckling of a thin elastic plate. II. Plate with general edge conditions.
- Berger, R. 469: (with Kiehl, R.; Kunz, E. and Nastold, H.-J.) ★Differentialrechnung in der analytischen Geometrie.
- Berghout, R. F. 2807: On the equation  $ax - zb = c$ .
- Bergland, G. D. 2485: A fast Fourier transform algorithm using base 8 iterations.
- Bergman, George M. 4154: On groups acting on locally finite graphs.
- Bergman, Stefan. 4243b: Corrigenda: "Procedure for conformal mapping of triply-connected domains". 4243a: (with Chalmers, Bruce) A procedure for conformal mapping of triply-connected domains.
- Bergmann, Horst. 5121: Ein Färbbarkeitskriterium für endliche Graphen.
- Bergström, Harald. 5023: A generalization of Bochner's theorem and conditional covariance stationarity.
- Beridze, R. I. 4008: The representation of numbers by certain quadratic forms in four variables.
- Berikavili, N. A. 6031: Stable homotopy groups of polyhedra.
- Berk, Kenneth N. 5359: Ergodic theory with recurrent weights.
- Berkes, J. 2991: Einfacher Beweis und Verallgemeinerung einer Dreiecksungleichung.
- Berkinev, H. B. 3192: A certain method of integration of a system of linear partial differential equations with constant coefficients.
- Berković, E. M. 3415: (with Budak, B. M. and Solov'eva, E. N.) Difference approximations in optimal control problems.
- Berković, Ja. G. 299: The structure of a group and the structure of its subgroups. 1458: Finite groups with large cores of maximal subgroups. 6364: Finite nonsolvable groups with abelian third maximal subgroups.
- Berković, L. M. 4309: Factorization of ordinary linear differential operators that can be transformed into operators with constant coefficients. II. 4310: The reduction of ordinary linear differential equations to equations with constant coefficients. 3077: (with Kval'vasser, V. I.) Operator identities and certain ordinary linear differential equations of higher orders which are integrable in closed form.
- Berlekamp, E. R. 6266: (with Rumsey, H. and Solomon, G.) On the solution of algebraic equations over finite fields.
- Berlinskii, A. N. 1097: The number of elliptic regions adjoining a singular point.
- Berlowitz, B. 1324: Extensions of a theorem of Hardy. 2710: On a method of Davenport.
- Berman, D. L. 1623: Certain linear polynomial operations in a complex region. 3099: Linear polynomial operations in the complex domain, and Faber polynomials.
- Berman, S. D. 1488: Group algebras of countable abelian  $p$ -groups. 1489: (with Saraja, V. V.) The irreducible representations of an infinite direct product of finite groups.
- Bernadskii, I. A. 1387: (with Minlos, R. A.) The defect indices of symmetric Jacobian matrices.
- Bernard, A. 6757: Sur algèbres d'une algèbre fondamentale.
- Berzat, Pierre. 6334: Sur le corps enveloppant d'une algèbre de Lie résoluble.
- Bernau, S. J. 2023: The square root of a positive self-adjoint operator. 2024: An unbounded spectral mapping theorem.
- Berndt, Bruce C. 1325: Generalised Dirichlet series and Hecke's functional equation.
- Bernoulli, Daniel. See Fuss, P.-H., #1220 and Šeinin, O. B., #15.
- Bernoulli, Jean. See Fuss, P.-H., #1220.
- Bernoulli, Nicholas. See Fuss, P.-H., #1220.
- Bernstein, Herbert J. 5298: Extension of Hajós' factorization theorem to some non-Abelian groups.
- Bernstein, I. N. 5690: The possibility of analytic continuation of  $f_*$  for certain polynomials  $f$ .
- Bernstein, Leon. 1301: The linear Diophantine equation in  $n$  variables and its application to generalized Fibonacci numbers. 1302: Multiplicative twins and primitive roots.
- Bers, Lipman. 5383: Inequalities for finitely generated Kleinian groups.
- Berstel, Jean. 6263: Une application d'un théorème de Mahler aux propriétés arithmétiques des coefficients des séries rationnelles.
- Berți, Ștefan N. 3615: Problems related to the study of normal sequences of digits.
- Bertin, Jean-Étienne. 4081: Quelques propriétés de la variété de Picard de type linéaire commutatif.
- Bertino, Salvatore. 947: Una generalizzazione della dissomiglianza di C. Gini tra variabili casuali semplici.
- Besicovitch, A. S. 4237: On linear sets of points of fractional dimension. II. 5345: (with Rado, R.) A plane set of measure zero containing circumferences of every radius.
- Besov, O. V. 1987: (with Il'in, V. P.) A natural extension of the class of domains in imbedding theorems.
- Bessaga, C. 1946: Negligible sets in linear topological spaces.
- Beserre, Annie. 2742: Sur quelques propriétés des couples d'anneaux ou de modules.
- Besmertnyh, G. A. 6513: Several remarks on the question of the existence of a solution for singular systems of ordinary differential equations.
- Best, Gilbert C. 2417: Powers of a matrix of special type.
- Beyer, W. A. 1964: (with Ulam, S. M.) Note on the visual hull of a set.
- Bhagavan, C. S. K. 5927: (with Nagabhushanam, K.) Non-stationary processes and spectrum.
- Bhakta, P. C. 352:  $\phi$ -derived numbers and functions of bounded variation.
- Bhanu Murthy, T. S. See Proceedings of the Steklov Institute of Mathematics. No. 80 (1965): Algebraic number theory and representations, #9.
- Bhargava, M. 1607: (with Kaufman, H.) Factorization of polynomial differential operators. 4302: (with Kaufman, H.) Some properties of polynomial solutions of a class of Riccati-type differential equations.
- Bhargava, R. P. 2390: Analysis of variance for Scheffé's mixed model for stair-case design.
- Bharucha-Reid, A. T. 5724: (with Buche, A. B.) On some functional equations associated with semigroups of operators.
- Bhat, U. Narayan. 994: Transient behavior of multi-server queues with recurrent input and exponential service times.
- Bhatia, Nam P. 6348: (with Szegő, George P.) An extension theorem for asymptotic stability and its application to a control problem.
- Bhatt, Shri Nivas. 6676: An aspect of local property of the absolute summability of the  $r$ th derived series.
- Bhattacharjee, G. P. 7019: Non-normality and heterogeneity in two sample  $t$ -test.
- Bhattacharya, P. K. 4901: Estimation of a probability density function and its derivatives.
- Bhattacharya, R. N. 2293: Berry-Esseen bounds for the multi-dimensional central limit theorem.
- Bhattacharya, Samir Kumar. 5996: Bayesian approach to life testing and reliability estimation.
- Bhattacharyya, G. K. 7061: Robust estimates of linear trend in multivariate time series. 5978: (with Johnson, Richard A.) Approach to degeneracy and the efficiency of some multivariate tests. 5987: (with Johnson, Richard A.) Nonparametric tests for shift at an unknown time point.
- Bhuta, Pravin G. 7123: Exact nonlinear solution of the bending of a constrained beam.
- Białynicki-Birula, A. 211: Remarks on relatively minimal models of fields of genus 0. II.
- Blanchini, Rosa Maria. 5447: Due criteri di unicITÀ e convergenza del metodo di Picard per equazioni differenziali ordinarie.
- Bicadze, A. V. 1597: On Schwarz' lemma. 1773: ★Boundary value problems for second order elliptic equations.
- Bick, T. A. 1558: Similar configurations in measurable sets.
- Bickel, P. J. 7027: (with Hodges, J. L., Jr.) The asymptotic theory of Galton's test and a related simple estimate of location.
- Bickley, W. G. 6036: Piecewise cubic interpolation and two-point boundary problems.
- Biedenharn, L. C. 7146: Some remarks on representations of the non-compact unitary groups  $SU(p, 1)$ . 3915: (with Holman, Wayne J., III) A general study of the Wigner coefficients of  $SU(1, 1)$ .

- Biegert, Wolfgang. 648: Die Tauber-Bedingungen vom Schmidtschen Typ und Tauber-Konstanten bei den Kreisverfahren. 6642: Tauber-Konstanten zu verschiedenen Tauber-Bedingungen beim Borel-Verfahren.
- Bierlein, D. 2529: Zur Einbeziehung der Erfahrung in spieltheoretische Modelle. 5034: Spiele mit mehr als einem Spielwert.
- Biesterfeldt, H. J., Jr. 6904: Uniformization of convergence spaces. I. Definitions and fundamental constructions. 6905: (with Pervin, W. J.) Uniformization of convergence spaces. II. Conjugate convergence structures and bi-structures.
- Bidkar, Sheila. 7020: (with Patil, G. P.) Multivariate exponential-type distributions.
- Bill, V. I. 3010: The approximation of functions with continuous fractional derivative.
- Billimović, Anton. 5406: Differential elements of the geometric theory of nonanalytic functions. 5407: Partial differential equations in the geometric theory of non-analytic functions.
- Bilinski, Stanko. 3426: Einige Betrachtungen über Geradenkoordinaten in der hyperbolischen Ebene. 3427: Über ein Modell der zweidimensionalen hyperbolischen Geometrie in der Torusebene.
- Bing, R. H. 5847: (with Anderson, R. D.) A complete elementary proof that Hilbert space is homeomorphic to the countable infinite product of lines.
- Bingham, M. S. 5611: (with Parthasarathy, K. R.) A probabilistic proof of Bochner's theorem on positive definite functions.
- Bimmore, K. G. 5916: (with Katz, Melvin) A note on the strong law of large numbers.
- Binz, E. 1991: Kompakte Limesräume und limitierte Funktionen-algebren. 756: (with Meier-Solfrian, W.) Zur Differentialrechnung in limitierten Vektorräumen.
- Biran, Lufti. See Gnedenko, B. V. and Hincin, A. Ja., #4843 and Jaglom, A. M. and Jaglom, I. M., #4844.
- Birch, B. J. 6242: How the number of points of an elliptic curve over a fixed prime field varies.
- Birkhoff, Garrett. 2638: ★Lattice theory. 2404: (with Schultz, M. H. and Varga, R. S.) Piecewise Hermite interpolation in one and two variables with applications to partial differential equations.
- Birnbaum, Z. W. 2393: (with Esary, J. D.) Some inequalities for reliability functions.
- al-Birūnī, Abū l-Rayḥān Muḥammad ibn Aḥmad. 6148: ★Selected works. III: Geodesy.
- Biruni, Abu Reihan. See al-Birūnī, Abū l-Rayḥān Muḥammad ibn Aḥmad.
- Bishop, Errett. 4235: A constructive ergodic theorem.
- Bistricas, V. B. 3837: Certain properties of an infinite-step dichotomous and trichotomous process of dynamic programming.
- Bitsadze, A. V. See Bitsadze, A. V.
- Blackwell, David. 5025: A Borel set not containing a graph.
- Blair, D. E. 2127: The theory of quasi-Sasakian structures. 2128: (with Goldberg, S. I.) Topology of almost contact manifolds.
- Blakley, G. R. 230: Intrinsic characterization of polynomial transformations between vector spaces over a field of characteristic zero. 1391: (with Coppage, W. E. and Dixon, R. D.) A set of linearly independent permutation matrices.
- Blambert, Maurice. 1624: (with Chevalier, Georges) Suites crameriennes et polynômes de Dirichlet-Tchebyscheff.
- Blanc, Charles. See Euler, Leonard, #6155.
- Blanch, Gertrude. 4951: Numerical aspects of Mathieu eigenvalues.
- Blancheton, Éliane. 551: Introduction à l'étude de la stabilité dans les espaces de Banach.
- Blanc-Lapierre, André. 6988: (with Tortrat, Albert) Sur un problème de compensation de corrélations dans le cas de fonctions aléatoires ou de suites de variables aléatoires de second ordre.
- Blanksby, P. E. 5155: On the product of two linear forms, one homogeneous and one inhomogeneous.
- Blanksma, J. J. 5851: ★Lattice characterizations of topologies and compactifications.
- Blaguère, A. 6813: (with Leitmann, G.) Some geometric aspects of optimal processes. I. Problems with control constraints.
- Blatt, John M. 3851: Statistics of fragments from enzyme-induced breakup of co-polymer chains.
- Blatter, J. 4563: (with Morris, P. D. and Wulbert, D. E.) Continuity of the set-valued metric projection.
- Blaz, J. 4362: The existence and uniqueness of the solution of a first order nonlinear integro-differential equation with deviating argument.
- Blaz, Ja. See Blaz, J.
- Blazek, Jaroslav. See Kuroš, A. G., #3.
- Bleistein, Norman. 670: (with Handelsman, Richard A.) Uniform asymptotic expansions of certain integrals. 607: (with Lewis, Robert M.) Space-time diffraction for dispersive hyperbolic equations.
- Blinčevskii, V. S. 5460: A boundary value problem for a system of ordinary differential equations.
- Blinov, I. N. 3137: Analytic representation of the solution of a system of linear differential equations with periodic slightly oscillating coefficient-matrix, depending on a parameter.
- Bliznaks, V. I. 848: Affine connections associated with a quasilinear system of partial differential equations of the first order.
- Blijum, S. L. 3261: Certain properties of a class of multiplicative systems and questions of approximation of functions by polynomials in these systems. 4501: Linear summability methods for Fourier series in multiplicative systems.
- Bloch, Daniel A. 1041: (with Gastwirth, Joseph L.) On a simple estimate of the reciprocal of the density function.
- Bloh, A. 4143: Cartan-Eilenberg homology theory for a generalized class of Lie algebras.
- Bloom, Clifford O. 1135: Diffraction by a hyperbolic cylinder.
- Bloom, D. M. 2671: On the coefficients of the cyclotomic polynomials.
- Blum, E. K. 7062: Stationary points of functionals in pre-Hilbert spaces.
- Blum, J. R. 4870: (with Rosenblatt, J. I.) On the moments of recurrence time.
- Blumenthal, R. M. 5935: (with Gettoor, R. K.) Hunt processes and standard processes.
- Blumenthal, Saul. 7030: (with Cohen, Arthur) Estimation of the larger of two normal means.
- Blundon, W. J. See Sexton, Charles R., #1300.
- Boardman, J. M. 6945: Singularities of differentiable maps.
- Bobisud, Larry E. 622: On the behavior of the solution of the telegraphist's equation for large velocities. 3214: Laplace's equation in a quarter space as the limit of the wave equation.
- Bobkov, V. V. 1086: A certain method of constructing single-step rules for the approximate solution of differential equations.
- Boboe, Nicu. 455: (with Cornea, Aurel) Comportement des balayées des mesures ponctuelles. Comportement des solutions du problème de Dirichlet aux points irréguliers. 6478: (with Mustață, Paul) Sur l'équicontinuité de certaines familles de fonctions continues. 1641: (with Constantinescu, C. and Cornea, A.) Semigroups of transitions on harmonic spaces.
- Boccioni, Domenico. 237: Struttura degli anelli generati dai loro elementi unità sinistri. 238: Immersione di un anello in un anello avente un numero cardinale qualsiasi di elementi unità sinistri. 239: Somme diretta e rappresentazioni di anelli  $E_i$ -generati.
- Bochnak, Jacek. 2948: Invariant functionals on locally compact topological spaces.
- Bocivar, D. A. 6162: On a three-valued calculus and its application to analysis of the paradoxes of the classical extended functional calculus.
- Bodanko, W. 3205: Les propriétés des solutions non négatives de l'équation linéaire normale parabolique.
- Bode, Albert. 6303: Matrixielle untere Schranken linearer Abbildungen und  $M$ -Matrizen.
- Bodewig, E. 4096: L'équation minimale d'une matrice.
- Bodin, N. A. 3617: (with Zalgaller, V. A.) Concavity of certain functions connected with the two-dimensional normal distribution.
- Boéchat, Jacques. 5882: (with Haefliger, André) Plongements différentiables des variétés de dimension 4 dans  $R^7$ .
- Boehme, T. K. 1856: (with Powell, R. E.) Positive linear operators generated by analytic functions.
- Boerner, H. 2872: ★Enzyklopädie der mathematischen Wissenschaften mit Einschluss ihrer Anwendungen, Band I: Algebra und Zahlentheorie. 1. Teil A. Grundlagen; B. Algebra. Heft 8, Teil II. No. 15: Darstellungstheorie der endlichen Gruppen. 5397: ★Darstellungen von Gruppen. Mit Berücksichtigung der Bedürfnisse der modernen Physik.



- Boero, P.** 1413: Metodi omologici elementari nella teoria dei sistemi di equazioni. I.
- Boesch, F. T.** 7212: Cut-set matrices and the Cederbaum algorithm.
- Bogart, Kenneth P.** 2642: Structure theorems for regular local Noether lattices.
- Bogdanowicz, W. M.** 5351: (with Welch, John N.) Integration generated by orthogonal volumes and extensions of orthogonal volumes to orthogonal measures.
- Böge, Sigrid.** 4056: Algebraischer Beweis eines Satzes von Ritt aus der Theorie der algebraischen Differentialgleichungen.
- Bognár, Máttyás.** 3575: The origin and development of the theory of topological manifolds.
- Bogoljubov, A. N.** 3899: (with Mitropol'skii, Ju. O. and Parasjuk, O. S.) Ioan Zaharoviî Stokalo: On his seventieth birthday. See also *History of national mathematics in four volumes. Vol. II. 1801-1917, #3888.*
- Bogoljubov, N. N.** 6096: The theory of quasi-means. 5077: (with Gohberg, I. C. and Šilov, G. E.) Mark Grigor'evič Krein: On his sixtieth birthday.
- Bogoslovskii, B. P.** 505: (with Jablonskii, A. I.) Systems of differential equations with algebraic moving singular points.
- Bohan, K. A.** 5656: The analytic representation of certain nonlinear functionals.
- Bohl, Erich.** 5744: Iterationsverfahren mit Fehlerabschätzung für lineare Operatorgleichungen. 6779: An iteration method and operators of monotone type.
- Böhm, Johannes.** 3895: Wilhelm Maier zum 70. Geburtstag.
- Bohrer, Robert.** 1027: On Bayes sequential design with two random variables. 4916: Operating characteristics of some sequential design rules.
- Bojarincev, A. E.** 172: Asymptotic expressions for the  $n$ th composite number.
- Bojarincev, Ju. E.** 3783: Convergence of difference schemes for equations with variable coefficients.
- Bojarski, B.** 4995: Subsonic flow of compressible fluid.
- Bokoba-Haggiag, Juliane.** 6951: Une définition globale des opérateurs pseudodifférentiels sur une variété différentiable.
- Bol, Gerrit.** 840: ★Projektive Differentialgeometrie. Teil III.
- Bolotnikov, Ju. V.** 2292: Convergence to Gaussian and Poisson processes of the quantities  $\mu_n$  in the classical occupancy problem.
- Boltjanskii, V. G.** 5761: ★Equivalent and equidecomposable figures.
- Boltjanskii, V. G.** See Boltjanskii, V. G.
- Bombieri, Enrico.** 4262: (with Ragnedda, Pasquale) Sulle deficienze delle funzioni meromorfe di ordine inferiore finito.
- Bompiani, Enrico.** 4704: Un teorema di Moutard sulle polari di una superficie algebrica. 5797: Elementi principali di una varietà tridimensionale dello spazio proiettivo a sei dimensioni. 5798: On principal elements of a surface in a six-dimensional projective space.
- Bonami, A. A.** 4276: The Phragmén-Lindelöf principle for mean values of subharmonic functions.
- Bonami, Aline.** 6686: Construction d'opérateurs de convolution sur le groupe  $D^n$ .
- Bonardi, Maria Teresa.** 2747: Un'osservazione sopra l'ideale di una varietà algebrica non singolare.
- Bondarenko, P. S.** 3792: (with Sereda, V. Ju.) An estimate of the error of a class of real algorithms for the numerical solution of linear integral equations of the second kind.
- Bondarenko, V. I.** 6117: (with Krasovskii, N. N. and Filimonov, Ju. M.) On the problem of bringing a linear system to its equilibrium position.
- Bonera, Piero.** 4068: Un teorema sui sistemi lineari di quadriche di  $S$ , a matrice jacobiana nulla identicamente e alcune sue applicazioni. II.
- Bongale, P. R.** 1399: Filtered Frobenius algebras. II.
- Bongiorno, Benedetto.** 5629: Sulle equazioni integrali di terza specie.
- Bonie, Robert.** 757: Points of minimum norm on smooth surfaces in Banach spaces. 5680: Some properties of Hilbert scales.
- Bonnett, D. A.** 4776: (with Porter, J. R.) Matrix characterizations of topological properties.
- Bonnice, William E.** 2088: (with Reay, John R.) Interior points of convex hulls.
- Bony, Jean-Michel.** 6578: Sur la propagation des maximums et l'unicité du problème de Cauchy pour les opérateurs elliptiques dégénérés du second ordre. 6579: Problème de Dirichlet et inégalité de Harnack pour une classe d'opérateurs elliptiques dégénérés du second ordre.
- Boothby, William M.** 3585: On the integral curves of a linear differential form of maximum rank.
- Boothroyd, J.** 3747: The symmetric matrix eigenproblem—Jacobi's method revisited.
- Borchers, H.-J.** 6086: On the theory of local observables.
- Borenus, Gustaf.** 1259: (with Danielson, Sture and Jansson, Birger) Number of ways for choosing an alternative. A combinatorial problem related to Eulerian numbers.
- Borgers, A.** 3905: La logique des classes.
- Borges, Carlos J. R.** 4786: A study of multivalued functions. 6910: On metrizable topological spaces.
- Borisevič, A. I.** 2998: (with Lapin, G. P.) On the interpolation of entire functions.
- Borisovič, Ju. G.** 3149: The Poincaré-Andronov method in problems on periodic and bounded solutions of differential equations with retarded argument.
- Borkowski, L.** 3904: (with Ślupecki, J.) ★Elements of mathematical logic and set theory.
- Borog, E.** 2777: On certain properties of  $EP$ , matrices. 2778: (with Giurescu, C.) On certain matrix equations.
- Borovkov, A. A.** 990: Some theorems in renewal theory and their applications.
- Borovskii, Ju. E.** 2983: An estimate for convex surfaces with a quasi-conformal spherical mapping.
- Borš, Ju. I.** 6033: A matrix algorithm for solving linear differential equations and systems.
- Borsuk, Karol.** 4811: Concerning homotopy properties of compacta.
- Borůvka, Otakar.** 5453: Théorie des transformations des équations différentielles linéaires du deuxième ordre.
- Borwein, D.** 643: (with Case, F. P.) Strong Nörlund summability.
- Bos, Werner.** 896: Für  $j \leq n-3$  sind zwei  $j$ -Zellen des  $R^n$  stets verbindbar. 4792: On homeomorphic pseudoannuli and the connectability of  $(n-1)$ -balls in  $S^n$ .
- Bosák, Juraj.** 3946: (with Kotzig, Anton and Zám, Štefan) Strongly geodesic graphs.
- Bose, R. C.** 2530: (with Cameron, J. M.) Calibration designs based on solutions to the tournament problem.
- Bosq, Denis.** 7031: Sur l'estimation d'une fonction continue. 7064: Sur les éléments extrémaux d'un échantillon vectoriel.
- Bosset, L.** 7076: Quelques expériences numériques sur la méthode de Rutishauser pour le calcul des valeurs propres.
- Bošev, A. I.** 5621: On the theory of operational calculus. 5622: The application of Ditkin's operational calculus to differential and integro-differential equations. 5623: The application of integral transforms in the construction of an operational calculus for Ditkin's operator. 1795: (with Bykov, Ja. V.) On the theory of a certain class of systems of parabolic type. 4433: (with Bykov, Ja. V.) A method for constructing solutions of a certain class of operator equations. 5623: (with Bykov, Ja. V.) The properties of Ju. N. Rabotnov's special functions and the inversion of integral operators. 5624: (with Bykov, Ja. V.) On the problem of invariance of solutions of differential and difference equations.
- Botez, M. C.** 3946: Théorie ergodique pour les systèmes à liaisons complètes. 4871: Sur l'ergodicité des systèmes à liaisons complètes.
- Botta, Peter.** 2772: Linear transformation on matrices: The invariance of a class of general matrix functions. II. 6294: On the conversion of the determinant into the permanent.
- Bottema, O.** 3150: Free oscillations of an infinite string.
- Bouguer, Pierre.** See Maheu, Gilles, #6150 and *Lettres de Bouguer à Euler*, #6151.
- Boulaye, G.** 5101: Homomorphismes de relations binaires. I.
- Bourbaki, N.** See *Séminaire Bourbaki. Vol. 1966/1967: Exposés 313-330, #10.*
- Bouricius, Willard G.** 7222: (with Roth, J. Paul and Schneider, Peter R.) Programmed algorithms to compute tests to detect and distinguish between failures in logic circuits.
- Boutet de Monvel, Louis.** 1760: (with Krée, Paul) Pseudo-differential operators and Gevrey classes.
- Bouwer, I. Z.** 345: Standard representations of simple Lie algebras.

- Bovdi, A. A. 2853: Periodic normal divisors of the multiplicative group of a group ring.
- Bowman, R. H. 856: On the extensive derivative.
- Bowtell, A. J. 6310: On a question of Mal'cev.
- Boyd, A. V. 4295: The monotonicity of  $I_1(x)/I_0(x)$ .
- Boyd, J. B. 6082: A homological approach to parametric Feynman integrals. 7142: Carathéodory's principle and the existence of global integrating factors.
- Box, G. E. P. 1019: (with Tiao, George C.) A Bayesian approach to the importance of assumptions applied to the comparison of variances. 1020: (with Tiao, G. C.) A Bayesian approach to some outlier problems.
- Braksma, B. L. J. 1904: (with Meulenbeld, B.) Integral transforms with generalized Legendre functions as kernels.
- Brace, John W. 1972: (with Nielsen, Robert M.) Function space representations of completions.
- Bradley, Hugh E. 1033: Multiple classification analysis for arbitrary experimental arrangements.
- Bradley, Lee C. 2398: (with Aggarwal, H. R.; Ablow, C. M.; Wood, Van E. and Glasser, M. L.) Table errata.
- Bradley, Ralph A. 1046: Topics in rank-order statistics.
- Bragg, L. R. 569: (with Dettman, J. W.) Related problems in partial differential equations. 561: (with Dettman, J. W.) An operator calculus for related partial differential equations. 3170: (with Dettman, J. W.) Related partial differential equations and their applications.
- Brauer, Alfred. 4986: Exponential form of the elements of some algebras. 4987: Exponential form for the elements of direct sums of algebras and some applications.
- Brainerd, Barron. 5062: An analog of a theorem about context-free languages.
- Bramble, James H. 4970: Il metodo alle differenze finite per il problema generalizzato di Dirichlet. 449: (with Payne, Lawrence E.) Bounds for the first derivatives of Green's function.
- Brand, Louis. 630: Periodic solutions of linear difference equations.
- Brandenburg, Jürgen. 1477: Über die Rechtsderivierten des inversen Limes von Modul- und Gruppenfamilien.
- de Branges, Louis. 4590: ★Hilbert spaces of entire functions. 4664: (with Shulman, Lawrence) Perturbations of unitary transformations.
- Bränzel, Dan. 914: Sur une généralisation de la théorie d'homotopie. 915: Sur les supports d'homotopie.
- Bratley, Paul. 1299: (with McKay, John) More amicable numbers.
- Brauer, Fred. 3084: Nonlinear perturbations of Sturm-Liouville boundary value problems.
- Brauer, Richard. 324: On pseudo groups.
- Brauer, Wilfried. 4167: Zu den Sylowsätzen von Hall und Čunichin.
- Brauner, Heinrich. 2098: Neuere Untersuchungen über windschiefe Flächen: Ein Bericht.
- Breckner, Wolfgang W. 3264: A characterization theorem of the elements of best approximation.
- Bredihina, E. A. 679: The uniform convergence of Fourier series of almost periodic functions. 1875: Concerning A. N. Kolmogorov's theorem on lacunary partial sums of Fourier series. 4684: The absolute convergence of Fourier series of almost periodic functions.
- Bredon, Glen E. 2220: Cosheaves and homology. 3560: On the Künneth formula and functorial dependence in algebraic topology.
- Breiman, Leo. 2294: On the tail behavior of sums of independent random variables. 4841: ★Probability.
- Brelot, Marcel. 3024: Recherches sur la topologie fine et ses applications: Théorie du potentiel.
- Brenner, J. L. 5233: (with Beasley, L. B.) Bounds for permanents, determinants, and Schur functions.
- Bresters, D. W. 4609: On distributions connected with quadratic forms.
- Bretagnolle, Jean. 3654: (with Dacunha-Castelle, Didier) Sur une classe de marches aléatoires.
- Breuer, Melvin A. 1189: (with Folkman, Jon) An unexpected result in coding the vertices of a graph.
- Bresin, Jonathan. 2896: ★Unitary representation theory for solvable Lie groups. 344: (with Auslander, L.) Almost algebraic Lie algebras.
- Bridgland, T. F., Jr. 4686: Errata: "On the problem of approximate synthesis of optimal controls".
- Brieskorn, Egbert. 5897: Über holomorphe  $P_n$ -Bündel über  $P_1$ .
- Brillhart, John. 131: (with Selfridge, J. L.) Some factorizations of  $2^n \pm 1$  and related results.
- Brillinger, David R. 4033: Estimation of the cross-spectrum of a stationary bivariate Gaussian process from its zeros.
- Brinkmann, Hans-Berndt. 6348: Relative homological algebra and the Adams spectral sequence.
- Bril, N. I. 5536: (with Jurčuk, N. I.) Certain new boundary value problems for a certain kind of partial differential equations. I.
- Broek, P. 3900: (with Baer, R. M.) Natural sorting over permutation spaces.
- Bröcker, Theodor. 4144: Homologie symmetrischer und alternierender Gruppen.
- Brodskii, M. S. 5719: (with Brodskii, V. M.) The abstract triangular representation of bounded linear operators and the multiplicative expansion of their eigenfunctions.
- Brodskii, V. M. 5719: (with Brodskii, M. S.) The abstract triangular representation of bounded linear operators and the multiplicative expansion of their eigenfunctions.
- Broise, Michel. 708: Sur les vecteurs séparateurs des algèbres de von Neumann commutatives.
- Broise, P. 3838: (with Huard, P. and Sentenac, J.) ★Décomposition des programmes mathématiques.
- Bronk, Burt V. 5438: Theorem relating the eigenvalue density for random matrices to the zeros of the classical polynomials.
- Bronstein, I. U. 907: Extensions of transformation groups. 2166: On various concepts of the limit of a direction of closed sets. 5360: A generalization of a theorem of Green.
- Bronstein, M. A. 1478: Polynilpotent products of groups.
- Brookes, C. J. 2052: A first integral of the general Euler differential equation.
- Brooks, R. M. 759: On commutative locally  $m$ -convex algebras. 762: Boundaries for locally  $m$ -convex algebras. 1992: On the invariance of the spectrum in locally  $m$ -convex algebras. 3357: Partitions of unity in  $F$ -algebras. 6758: The structure space of a commutative locally  $M$ -convex algebra.
- Bros, J. 5421: (with Itzykson, C. and Pham, F.) Représentations intégrales de fonctions analytiques et formule de Jost-Lehmann-Dyson.
- Brosowski, B. 3265: Tschebyscheffsche Approximationen an differenzierbare Funktionen. 4475: Über die Eindeutigkeit der asymptotisch konvexen Tschebyscheff-Approximationen. 4482: ★Nicht-lineare Tschebyscheff-Approximation.
- Browder, Felix E. 2043: Nonlinear eigenvalue problems and Galerkin approximations. 4679: The fixed point theory of multi-valued mappings in topological vector spaces. 5742: Semicontractive and semiaccretive nonlinear mappings in Banach spaces. 5743: On the convergence of successive approximations for nonlinear functional equations. 4678: (with Petryshyn, W. V.) The topological degree and Galerkin approximations for noncompact operators in Banach spaces.
- Brown, C. C. 769: On the finite measures on the closed subspaces of a Hilbert space. 2031: Zwei Stetigkeitsaussagen für eine gewisse Klasse von Operatoren über einem separablen Hilbertraum. 6763: Errata to: "On the finite measures on the closed subspaces of a Hilbert space".
- Brown, Gavin. 4622: Stability of wedges and semi-algebras.
- Brown, Gillian M. 869: Gaussian curvature of a surface in a Finsler space. 5828: A study of tensors which characterize a hypersurface of a Finsler space.
- Brown, J. L., Jr. 132: A combinatorial problem involving Fibonacci numbers. 5157: (with Duncan, R. L.) A generalized Weyl criterion.
- Brown, J. W. 1662: (with Goldberg, J. L.) A note on generalized Appell polynomials.
- Brown, John Wesley. 5111: Enumeration of Latin squares with application to order 8.
- Brown, Leon. 2156: (with Schnitzer, F. and Shields, A. L.) A note on a problem of D. Pompeiu.
- Brown, Morton B. 3690: The two-means problem—a secondary Bayes approach.
- Brown, Robert B. 2823: A minimal representation for the Lie algebra  $\mathfrak{e}_7$ .

- Brown, Ronald. 3563: ★Elements of modern topology.
- Brown, Susan N. 6072: An asymptotic expansion for the eigenvalues arising in perturbations about the Blasius solution.
- Brownlee, Anne. 1277: Directed graph realization of degree pairs.
- Bruckner, Gottfried. 6250: Eine Charakterisierung der in algebraischen Zahlkörpern voll zerlegten Primzahlen.
- Brückner, Helmut. 6262: Eine explizite Formel zum Reziprozitätsgesetz für Primzahlpotenzen  $p$ .
- Brudovskii, B. S. 1952: Associated nuclear topology, type  $s$  mappings and strongly nuclear spaces.
- Bruhat, F. 6396: (with Tits, J.) Groupes algébriques simples sur un corps local.
- Bruhn, Gerhard. 797: (with Wendland, Wolfgang) Über die näherungsweise Lösung von linearen Funktionalgleichungen.
- de Bruijn, N. G. 1536: (with Post, K. A.) A remark on uniformly distributed sequences and Riemann integrability.
- Bruins, E. M. 3589: Fermat problems in Babylonian mathematics.
- Brumer, Armand. 4051: (with Auslander, Maurice) Brauer groups of discrete valuation rings. 1362: (with Rosen, Michael) On the size of the Brauer group.
- Bruneau, Michel. 4218: Calculi de la  $p$ -variation d'une fonction.
- Brunelle, E. J. 6543: The transient response of second order nonlinear equations.
- Bruni, Marcello. 4733: Forme lineari generalizzate e forma di Kähler in una varietà a struttura quaternionale generalizzata.
- Bruno, Teresa. 4411: Sull'unicità e l'approssimazione delle soluzioni del problema di Darboux.
- Brunovskii, P. See Brunovský, Pavel.
- Brunovský, Pavel. 516: Stabilization of linear systems under a certain class of constantly acting perturbations. 5507: On the optimal stabilization of nonlinear systems.
- de Bruyn, G. F. C. 2032: Asymptotic properties of linear operators.
- Bryant, John L. 5861: Euclidean space modulo a cell.
- Bryant, V. W. 2210: A remark on a fixed-point theorem for iterated mappings.
- Bryce, R. A. 5303: A note on free products with a normal amalgamation.
- Brzyczycki, S. 6068: A comparison of solutions of Prandtl's and Navier-Stokes' systems of equations at low viscosity.
- Buchanan, John E. 3740: (with Thomas, Donald H.) On least-squares fitting of two-dimensional data with a special structure.
- Buehdahl, H. A. 864: On rotor calculus. I. 865: On rotor calculus. II.
- Buche, A. B. 5724: (with Bharucha-Reid, A. T.) On some functional equations associated with semigroups of operators.
- Bueher, Willi. 4617: Différentiabilité de la composition et complétude de certains espaces fonctionnels.
- Buck, R. C. 5312: Decidable semigroups.
- Bucknell, R. S. 1303: Fibonacci numbers and some prime reciprocals.
- Bucur, C. D. 2096: (with Sudan, G.) Sur un problème de Barbour et Brun.
- Bucur, Florica. 3022: On a class of interior transformations.
- Buey, R. S. 493: Two-point boundary value problems of linear Hamiltonian systems. 5482: Global theory of the Riccati equation.
- Budak, B. M. 1768: (with Iskenderov, A. D.) A class of inverse boundary value problems with unknown coefficients. 3415: (with Berković, E. M. and Solov'eva, E. N.) Difference approximations in optimal control problems.
- Budjanu, M. S. 5697: (with Gohberg, I. C.) The factorization problem in abstract Banach algebras. I. Splitting algebras. 5098: (with Gohberg, I. C.) The factorization problem in abstract Banach algebras. II. Irreducible algebras.
- Bugulov, E. A. 5139: On the question of the existence of odd hyperperfect numbers.
- Buharaev, R. G. 1200: Two corrections to the article: "Certain equivalences in the theory of probabilistic automata". 3877: Automaton conversion of probability sequences.
- Buhšaber, V. M. 6923: (with Mišchenko, A. S.) Elements of infinite filtration in  $K$ -theory.
- Bujakas, V. I. 7191: Singular solutions of the maximum principle in a problem of optimal control of systems with variable structure.
- Büke, Altıntaş. See Boltjanakii, V. G., #5761.
- Bulanov, A. P. 4468: Asymptotics for least deviations of  $|x|$  from rational functions. 6649: The approximation of  $x^{1/3}$  by rational functions.
- Buledza, A. V. 4971: An application of the splitting method to the solution of some spectral problems.
- Bullirsch, R. 7115: (with Andelić, T. P.; Aumann, G.; Bauer, F. L.; Künzi, H. P.; Rutishauser, H.; Samelson, K.; Sauer, R. and Stoer, J.) ★Mathematische Hilfsmittel des Ingenieurs. Teil III.
- Bullen, P. S. 5342h: On some inequalities of Mitrinović and Vasić.
- Bunge, H. J. 6504: Über eine Fourierentwicklung verallgemeinerter Kugelfunktionen.
- Bunke, H. 7010: Über die Wahrscheinlichkeit, dass der Phasenpunkt eines Systems bei zufälliger Beeinflussung in einem vorgegebenen Gebiet bleibt.
- Burago, Ju. D. 3631: (with Maz'ja, V. G.) Certain questions of potential theory and function theory for regions with irregular boundaries.
- Burch, Lindsay. 5298: On ideals of finite homological dimension in local rings. 6278: A note on the homology of ideals generated by three elements in local rings.
- Burčuladze, T. V. 1783: On certain mixed boundary value problems for multiply connected regions. 4403: Some boundary problems for a class of elliptic systems of higher order.
- Burde, Gerhard. 4803: (with Zieschang, Heiner) Neuwirthsche Knoten und Flächenabbildungen.
- Burek, J. 6629: (with Kuczma, M.) Einige Bemerkungen über monotone und konvexe Lösungen gewisser Funktionalgleichungen.
- Burenkov, V. I. 594: Infinite differentiability and analyticity of solutions decreasing at infinity of equations with constant coefficients. 1989: Imbedding theorem for the domain  $B_k = \{\alpha, h < \alpha, h < \beta, h; 0 < h < 1\}$ . 3082: (with Aslanjan, A. G.) Refinement of a theorem of V. V. Morozov. 6517: (with Aslanjan, A. G.) The integrability in quadratures of certain systems of linear differential equations.
- Burgess, C. E. 3546: (with Loveland, L. D.) Sequentially 1-ULC surfaces in  $E^n$ .
- Burgess, D. A. 4010: A note on character sums of binary quadratic forms.
- Burghilea, Dan. 3571: Principal fibre spaces and Postnikov systems. 5869: Note sur les applications qui induisent pour l'homotopie l'homomorphisme "zéro". 2229: (with Deleanu, Aristide) The spectral sequence of Shih Weishu and the generalized cohomology theories. II.
- Burgoyne, F. D. 2405: Bivariate interpolation of potential functions.
- Burkholder, D. L. 3629: Independent sequences with the Stein property.
- Burlachenko, V. P. 388: A method for the analytic continuation of the Riemann zeta-function.
- Burlak, Jack. See Proceedings of the Steklov Institute of Mathematics, #6142.
- Burmeister, Peter. 2658: Über die Mächtigkeiten und Unabhängigkeitsgrade der Basen freier Algebren. I. 125: (with Schmidt, J.) On the completion of partial algebras.
- Burn, R. P. 5778: Bol quasi-fields and Pappus' theorem.
- Burnand, G. 4358: (with Sarlos, G.) Determination of the domain of stability.
- Burnat, M. 6069: Theory of simple waves for nonlinear systems of partial differential equations of the first order and applications to gas dynamics.
- Burniat, Pol. 4069: Sur le genre linéaire des surfaces algébriques irrégulières.
- Burns, R. G. 4170: A wreath tower construction of countably infinite, locally finite groups.
- Burrus, S. 2659: Representation theorems for closure spaces.
- Burrus, W. R. 6106: (with Replogle, J. and Holcomb, B. D.) The use of mathematical programming for solving singular and poorly conditioned systems of equations.
- Burtman, M. I. 4763: Integral geometry on the  $n$ -dimensional torus.
- Burton, T. A. 3125: (with Muldowney, James S.) A generalized Floquet theory.
- Busard, H. L. L. 1216: The translation of the *Elements* of Euclid from the Arabic into Latin by Hermann of Carinthia (?).
- Busarkin, V. M. 1459: On 2-isolated subgroups.



- Busby, Robert C. 770: Double centralizers and extensions of  $C^*$ -algebras. 771: On structure spaces and extensions of  $C^*$ -algebras.
- Buschman, R. G. 5628: Fractional integration.
- Bush, K. A. 2914: On a "wild" function.
- Butler, M. C. R. 1469: On locally free torsion-free rings of finite rank. 6327: Torsion-free modules and diagrams of vector spaces.
- Butts, H. S. 204: (with Gilmer, Robert W., Jr.) Primary ideals and prime power ideals.
- Butuzov, V. F. 717: Asymptotics of the solution of a certain problem for a nonlinear integro-differential equation with a small parameter at the derivative.
- Butzer, Paul L. 5588: (with Berens, Hubert) ★Semi-groups of operators and approximation. 3397: (with Pawelke, S.) Semi-groups and resolvent operators. 4489: (with Nessel, R. J. and Scherer, K.) Trigonometric convolution operators with kernels having alternating signs and their degree of convergence.
- Buzási, K. 1491: Kernels of irreducible representations of the Sylow  $p$ -subgroup  $S_3$  of the symmetric group  $S_n$ .
- Byčkov, B. M. 3318: (with Grober, V. M.) The absence of an unconditional basis in the factor spaces  $L^1/H_0^1$  and  $L^1/H_0^1$ .
- Bykov, Ja. V. 3299: Some questions on the qualitative theory of integro-differential equations. 5641: The stability of the solutions of a certain class of integro-differential equations. 5642: On the analytic theory of linear integro-differential equations of Barbašin type. 5643: Bounded solutions of a certain class of integro-differential equations. 1795: (with Botašev, A. I.) On the theory of a certain class of systems of parabolic type. 4433: (with Botašev, A. I.) A method for constructing solutions of a certain class of operator equations. 5623: (with Botašev, A. I.) The properties of Ju. N. Rabotnov's special functions and the inversion of integral operators. 5624: (with Botašev, A. I.) On the problem of invariance of solutions of differential and difference equations. 1929: (with Imanaliev, M.) Periodic solutions of integro-differential equations. 5639: (with Imanaliev, M.) Periodic, almost periodic and bounded solutions of a certain class of integro-differential equations with a small parameter at the derivative. 5652: (with Iskenderov, A.) Singular solutions of a certain class of integro-differential equations. 5474: (with Miminik, V. P.) Linear systems of differential equations with periodic coefficients. 5644: (with Salpagarov, H. M.) On the theory of integro-differential equations.
- Bykova, E. Ja. 5646: Stability of the solutions of integro-differential and integro-difference equations of Barbašin type. I.
- Byrd, Richard D. 2651:  $M$ -polars in lattice-ordered groups.
- Byrne, George D. 2483: (with O'Neill, John C.) A starting method for the numerical solution of Volterra's integral equation of the second kind.
- Býhyý, S. See Brzychozy, S.
- Čackaja, E. Š. 434: A dual interpretation of a boundary uniqueness theorem. 3262: Uniqueness and stability of the polynomial of best approximation.
- Cacoullos, Theophilos. 2285: Some characterizations of normality. 3630: Asymptotic distribution for a generalized Banach match box problem.
- Cahen, Michel. 6881: (with Mc Lenaghan, Raymond) Métriques des espaces lorentziens symétriques à quatre dimensions.
- Calcoli, R. 5936: Semi-groupes de transition et fonctions excessives.
- Calderón, A. P. 2939: Ergodic theory and translation-invariant operators. See also Proceedings of Symposia in Pure Mathematics. Vol. X: Singular integrals, #6144.
- Caldwell, William H. 1404: Hypercyclic rings.
- Caljuk, Z. B. 542: (with Logunov, A. I. and Logunov, V. I.) Estimates of solutions of second order differential equations with retarded argument.
- Călugăreanu, G. See Calugareanu, Georges.
- Calugareanu, Georges. 2217: Sur un choix intrinsèque des générateurs du groupe d'un nœud.
- Calvez, Léon-Claude. 6701: (with Genin, Robert) Sur quelques propriétés de la transformation de Laguerre.
- Cambern, Michael. 4564: On mappings of sequence spaces.
- Cameron, J. M. 2530: (with Bose, R. C.) Calibration designs based on solutions to the tournament problem.
- Campanato, S. 595: Un risultato relativo ad equazioni ellittiche del secondo ordine di tipo non variazionale.
- Campbell, C. M. 2475: (with Keast, P.) The stability of difference approximations to a self-adjoint parabolic equation, under derivative boundary conditions.
- Campbell, L. L. 3276: Sampling theorem for the Fourier transform of a distribution with bounded support.
- Campos Ferreira, Jaime. 4610a: Sur l'intégrale de la limite d'une suite de distributions intégrables. 4610b: Sur l'intégrale de la limite d'une suite de distributions intégrables.
- Candirov, G. I. 4955: Certain methods for constructing iteration processes. 4956: A contribution to the theory of iteration processes.
- Cannon, J. R. 7105: Determination of an unknown heat source from overspecified boundary data. 2463: (with Cecchi, Maria M.) The numerical solution of some biharmonic problems by mathematical programming techniques. 610: (with Hill, C. Denison) On the infinite differentiability of the free boundary in a Stefan problem. 3774: (with Hill, C. Denison) A finite-difference method for degenerate elliptic-parabolic equations.
- Cannon, J. W. 318: An elementary proof of the Jordan-Hölder theorem.
- Cannon, Lawrence O. 897: On a point-segment decomposition of  $E^n$  defined by McAuley.
- Cannonito, Frank B. 70: Hierarchies of computable groups and the word problem.
- Cano, Julio. 3550: On commuting mappings by successive approximations. 5563: On sequences.
- Cantoni, Vittorio. 5019: Induction of representations of the generalized Bondi-Metzner group.
- Cantor, Georg. See Meschkowski, Herbert, #2569.
- Čanturija, Z. A. 1953: On certain properties of biorthogonal systems and  $\gamma$ -bases in a Banach space.
- Cantwell, John. 4583: A topological approach to extreme points in function spaces.
- Capra, Vincenzo. 3732: Sulla costruzione, completamente automatica, di grandi tavole delle funzioni  $J_n(x)EJ_n(x)$ .
- Caradonna, Gaetano. 4414: Su un problema al contorno per un'equazione non lineare di tipo iperbolico.
- Caraman, Petru. 409: On the equivalence of the definitions of the  $n$ -dimensional quasiconformal homeomorphisms (QCFH). 410: On a classification of the definitions of the quasiconformal homeomorphisms (QCFH).
- Carasso, Claude. 662: Méthode générale de construction de fonctions spline.
- Carathéodory, Constantin. 1530: ★Vorlesungen über reelle Funktionen.
- Carcanague, Jean. 4048: Propriétés des  $q$ -polynômes. 4049:  $q$ -polynômes abéliens sur un corps  $K$ .
- Cárdenas, Francisco Federico Ragl. See Ragl Cárdenas, Francisco Federico.
- Carleson, Lennart. 1576: ★Selected problems on exceptional sets.
- Carlitz, Leonard. 1260: Remarks on some algebraic identities. 2672: Some unusual congruences for the Bernoulli and Genocchi numbers. 2708: Note on a paper of Götze. 2773: Some determinants of  $q$ -binomial coefficients. 5105: Some generating functions and a binomial identity. 5439: A note on certain biorthogonal polynomials. 6494: The generalized hypergeometric differential equation. 3065: (with Al-Salam, W. A.) Corrigendum to: "Some functions associated with the Bessel functions".
- Carlson, David. 1383: A new criterion for  $H$ -stability of complex matrices. 1393: On some determinantal inequalities. 4104: On extensions of Szász's inequality.
- Carlsson, Siv. 6005: (with Grenander, Ulf) Statistical approximation of plane convex sets.
- Carney, Edward J. 1052: Relationship of generalized polykays to unrestricted sums for balanced complete finite populations.
- de Caroli, Alesio J. See De Caroli, Alesio J.
- Carroll, R. 775: Some remarks on the propagator equation.
- Cartan, Henri. 6858: ★Formes différentielles. Applications élémentaires au calcul des variations et à la théorie des courbes et des surfaces.
- Carter, Roger. 4161: (with Fischer, Bernd and Hawkes, Trevor) Extreme classes of finite soluble groups.

- Cartwright, M. L. 531: Almost periodic flows and solutions of differential equations.
- Čarunikov, V. D. 4960: The asymptotic optimality of cubature formulas with a boundary layer that is regular in the sense of S. L. Sobolev.
- Carvallo, Michel. 36: Sur la résolution des équations de Poisson.
- Čaryev, A. 4379: (with Domalak, Ju. I.) Certain conditions for the unboundedness of solutions of differential equations in Hilbert space.
- Case, Kenneth M. 1140: (with Zweifel, Paul F.) ★Linear transport theory.
- Casnoves, Dario Maravall. See Maravall Casnoves, Dario.
- Cass, F. P. 643: (with Borwein, D.) Strong Nörlund summability.
- Cassels, J. W. S. 1376: On a theorem of Den'janenko. 5223: Elliptic curves over local fields.
- Castoldi, Luigi. 2281: Variante di un problema probabilistico di Banach.
- Cattabriga, Lamberto. 4600: Alcuni teoremi di immersione per spazi funzionali generalizzanti gli spazi di S. L. Sobolev.
- Caughey, T. K. 5953: (with Atkinson, J. D.) Spectral density of piecewise linear first order systems excited by white noise. 5954: (with Payne, H. J.) On the response of a class of self-excited oscillators to stochastic excitation.
- Čaus, N. N. 579: Special characteristics of second order partial differential equations.
- Čausovskii, D. M. 7213: The operator colligation in the reflection problem for multipoles.
- Cavallès, P. See Kahan, Théo, #1127.
- Cazacu, Cabria Andreian. See Andreian Cazacu, Cabria.
- Cazzani Nieri, Maria Grazia. 1759: Su un problema misto per un sistema di equazioni a derivate parziali. 3202: Un teorema di unicità per un problema misto.
- Čeban, N. K. 1733: Recurrent points and minimal sets in partially ordered dispersive dynamical systems. 4359: Uniform approximation of sets in partially ordered dispersive dynamical systems.
- Čebotarev, G. N. 3374: Normal solvability of the Wiener-Hopf equations in certain singular cases.
- Čebotaru, I. S. 3375: The reduction of systems of Wiener-Hopf equations to systems with vanishing indices.
- Ceccherini, Pier Vittorio. 4711: Collineazioni e semicollineazioni tra spazi affini o proiettivi. See also Segre, Beniamino, #4700a-c.
- Cecchi, Maria M. 2463: (with Cannon, J. R.) The numerical solution of some biharmonic problems by mathematical programming techniques.
- Čech, Eduard. 4779: Point sets.
- Cegelik, G. G. 2429: The scaling of coefficients in some numerical methods of determining zeros of functions.
- Cekanovskii, E. R. 4647: The resolvent of generalized selfadjoint extensions of symmetric operators.
- Cellina, A. 3131: (with Szegő, G. P. and Olech, C.) On the stability properties of a third order system.
- Cellucci, Carlo. See La filosofia della matematica, #27.
- Čenov, N. N. 6992: (with Morozova, E. A.) Lévy's random fields.
- Čepel, Ján. 829: (with Šipos, Andrej) Envelope of an  $n$ -parameter system of surfaces in space.
- Čerdak, B. M. 630: Curves in Euclidean spaces.
- Čeremisin, A. I. 2652: Distributive  $F\Omega$ -groups with a finite number of carriers.
- Čeremnyh, L. T. 377: Spherical area as an integral along a segment of the real line.
- Caretelli, A. S. 3255: Approximation of functions of several variables by means of sums and products of functions of one variable.
- Cerf, Jean. 4824: ★Sur les difféomorphismes de la sphère de dimension trois ( $\Gamma_4 = 0$ ).
- Čerkaš, L. A. 1696: Stability of a singular cycle in the critical case. 4337: The stability of singular cycles.
- Čerkasov, A. I. 3300: Solvability of a nonlinear boundary value problem of Riemann type, with boundary condition containing derivatives, by the method of successive approximation.
- Černavskii, A. V. 6919: The  $k$ -stability of homeomorphisms and the union of cells. 6941: (with Keldyš, L. V.) Topological embeddings in euclidean space.
- Černikov, S. N. 287: The normalizer condition. 2520: The contraction of systems of linear inequalities. 4156: Groups with prescribed properties for systems of infinite subgroups.
- Černikov, V. V. 1380: Ranges of values of certain functionals on the class of bounded functions with real coefficients. 1581: (with Šizuk, P. I.) Distortion theorems for univalent functions with real coefficients.
- Černov, Ju. P. 5030: (with Kasymkulov, A.) Determination of the global minimum in allocation problems with nonlinear target function.
- Černý, Ján. 5050: Information transmission in the case of coding by finite automata.
- Černyšov, B. 236: Letter to the editor.
- Červonenkis, A. Ja. 6986: (with Vapnik, V. N.) The uniform convergence of frequencies of the appearance of events to their probabilities.
- Cesari, Lamberto. 1753: A criterion for the existence in a strip of periodic solutions of hyperbolic partial differential equations. 2053: Existence theorems for multidimensional Lagrange problems. 2054: Multidimensional Lagrange problems of optimization in a fixed domain and an application to a problem of magnetohydrodynamics.
- Čevskii, V. M. 1622: (with Andreeva, V. A.) Some inequalities of the type of V. A. Markov's inequalities.
- Chadam, John M. 5013: Unitarity of dynamical propagators of perturbed Klein-Gordon equations.
- Chafee, Nathaniel. 5496: The bifurcation of one or more closed orbits from an equilibrium point of an autonomous differential system.
- Chalkin, Jan M. 6076: Number operators for representations of the canonical commutation relations.
- Chak, A. M. 3075: Polynomial system satisfying a special functional equation.
- Chako, Nicholas. 6510: On the properties of certain functions orthogonal over circular domains. Generalisation of Zernike polynomials.
- Chakrabarty, R. P. 3721: (with Hartley, H. O.) Evaluation of approximate variance formulas in sampling with unequal probabilities and without replacement.
- Chakravarti, I. M. 998a: (with Laha, R. G. and Roy, J.) ★Handbook of methods of applied statistics. Vol. I: Techniques of computation, descriptive methods, and statistical inference. 998b: (with Laha, R. G. and Roy, J.) ★Handbook of methods of applied statistics. Vol. II: Planning of surveys and experiments. 7051: (with Leone, F. C. and Alanen, J. D.) Relative efficiency of Mood's and Massey's two-sample tests against some parametric alternatives. 7052: (with Leone, F. C. and Alanen, J. D.) Exact power of some quick tests based on Mood's and Massey's statistics.
- Chakravarty, N. K. 3085: Some problems in eigenfunction expansions. II.
- Chalk, J. H. H. 4714: A note on coverings of  $E^n$  by convex sets.
- Chalmers, Bruce. 6484: Fonctions de plusieurs variables complexes. Sur le comportement, à la frontière, de la fonction-noyau de Bergman. 4243a: (with Bergman, Stefan) A procedure for conformal mapping of triply-connected domains. See also Bergman, Stefan, #4243b.
- Chambadal, Lucien. 2: (with Ovaert, Jean-Louis) ★Cours de mathématiques. Tome I. Notions fondamentales d'algèbre et d'analyse.
- Chambers, John M. 1022: On methods of asymptotic approximation for multivariate distributions.
- Chambrial, Roger. 4512: Sur certains algorithmes donnant sans condition de signe l'abscisse de convergence uniforme d'une intégrale de Laplace-Stieltjes.
- Chan, Lai Kow. 5917: On the uniform convergences of the distributions of normed sample quantiles.
- Chandler, Bruce. 1479: The representation of a generalized free product in an associative ring.
- Chandrasekaran, P. S. 5245: (with Ramakrishnan, Alladi; Vasudevan, R. and Ranganathan, N. R.) A generalization of the  $L$ -matrix hierarchy.
- Chandrasekharan, K. 1344: (with Narasimhan, Raghavan) Zeta-functions of ideal classes in quadratic fields and their zeros on the critical line. See also Weyl, Hermann, #0157.
- Chaney, Robin W. 364: A chain rule for the transformation of integrals in measure space.
- Chang, Bomshik. 2843: The conjugate classes of Chevalley groups of type  $(G_2)$ .

- Chang, C. C. *See* Chang, Chen-chung.
- Chang, Chen-chung. 126: Cardinal factorization of finite relational structures.
- Chang, K. W. 511: Almost periodic solutions of singularly perturbed systems of differential equations.
- Chang, S. C. 5568: (with Macphail, M. S.; Snyder, A. K. and Wilansky, A.) Consistency and replaceability for conull matrices.
- Chang, Youngshik. 3512: A note on the completeness of uniform spaces.
- Chao, Chong-yun. 5295: A theorem of nilpotent groups.
- Chapman, D. G. 5992: (with Nam, Jun-mo) Asymptotic power of chi square tests for linear trends in proportions.
- Charatonik, J. J. 3528: On fans.
- Charlton, H. J. 898: A note on arc-preserving functions for manifolds. 5762: A decomposition of the plane into bounded closed line segments.
- Charmonman, S. 2418: (with Julius, R. S.) Explicit inverses and condition numbers of certain circulants.
- Chartrand, Gary. 2626: (with Harary, Frank) Planar permutation graphs. 5115: (with Kapoor, S. F. and Kronk, Hudson V.) A sufficient condition for  $n$ -connectedness of graphs.
- Chatterjee, S. K. 3071: A note on generalized Laguerre polynomials. 3991: Note on congruence properties of the Legendre polynomials. 4297: Operational formulas for the even and odd Hermite polynomials. 5440: Une nouvelle fonction génératrice bilatérale pour les polynômes d'Hermite.
- Chaves, Manuel Leite Arala. 4838: Sections and isotopies in certain function spaces.
- Chawla, L. M. 6236: (with Maxfield, J. E. and Muwafi, Amin) On the left-handed, right-handed and two-sided primes.
- Chawla, M. M. 3753: Error estimates for the Clenshaw-Curtis quadrature.
- Chazarain, Jacques. 5691: Problèmes de Cauchy au sens des distributions vectorielles et applications.
- Chen, C. C. 3973: Free Boolean extensions of distributive lattices. 3974: Construction of free products of distributive lattices.
- Chen, C. F. 7187: (with Haas, I. J.) An extension of Oppelt's stability criterion based on the method of two hodographs.
- Chen, Chi-tsung. 360: Linear independence of analytic functions.
- Chen, Kuo-tsai. 5294: Algebraic paths. 6410: Decomposition of differential equations.
- Chen, Ming-po. 1838: On the  $|\bar{N}, p_n|$  summability factors of infinite series.
- Chen, Y. W. 1789: A remark on the John-Agneirsson formula of iterated spherical means.
- Ch'en Chien-kung. 4487: The situation in China regarding the theory of trigonometric series in recent years.
- Cheney, E. W. 5580: (with Schurer, F.) A note on the operators arising in spline approximation.
- Cheng, Shao-lien. 4861: Linear translatable operators and harmonizable stochastic processes.
- Chen Jian-gong. *See* Ch'en Chien-kung.
- Cheong, C. K. 5949: Ergodic and ratio limit theorems for  $\alpha$ -recurrent semi-Markov processes.
- Chern, S. S. 940: ★Complex manifolds without potential theory. 2103: (with Osserman, Robert) Complete minimal surfaces in euclidean  $n$ -space.
- Chernoff, Herman. 2377: (with Bather, John) Sequential decisions in the control of a space-ship (finite fuel).
- Chernoff, Paul R. 6793: Note on product formulas for operator semi-groups.
- Chevalier, Georges. 1624: (with Blambert, Maurice) Suites crame-riennes et polynômes de Dirichlet-Tschebyscheff.
- Chevalier, Michel. 2144: Sur le noyau de diffusion de l'opérateur lapla-cien. 2145: Sur les noyaux de diffusion tensoriels.
- Chew, Kim Lin. 2797: On a conjecture of D. C. Murdoch concerning primary decompositions of an ideal.
- Chhabra, S. P. 1903: Some relations between Whittaker and generalised Hankel transforms.
- Chia, A. B. 1176: Random mating in a population of cyclic size.
- Chicco, Maurizio. 598: Principio di massimo forte per sottosoluzioni di equazioni ellittiche di tipo variazionale. 1774: Principio di massimo forte per sottosoluzioni di equazioni ellittiche di tipo varia-zionale.
- Chiffi, Antonio. 2117: Teoremi di prolungamento e continuità per correnti.
- Chihara, T. S. 3072: Orthogonal polynomials with Brenke type generat-ing functions.
- Chikawa, Kazuo. 2576: On equivalences of laws in elementary proto-theics. II.
- Chikkagoudar, M. S. 3719: On pps sampling with and without replace-ment.
- Chinn, W. G. 2161: (with Steenrod, N. E.) ★First concepts of topology: The geometry of mappings of segments, curves, circles, and discs.
- Chinthayamma. 2613: (with Gandhi, J. M.) On numbers generated by  $e^{(x^2-1)}$ .
- Chintschin, A. J. *See* Hindin, A. Ja.
- Chisini, Oscar. *See* Manara, Carlo Felice, #2568.
- Choda, Hisashi. 5702: On Maharam subfactors of finite factors. II.
- Cholewinski, Frank M. 3285: (with Haimo, Deborah Tepper) The Weierstrass-Laguerre transform. 4416: (with Haimo, Deborah Tepper) Classical analysis and the generalized heat equation.
- Choquet, Gustave. 4556: Cardinaux 2-mesurables et cônes faiblement complets. 6724: Mesures coniques, affines et cylindriques: struc-ture et opérations. 6725: Mesures coniques et affines invariantes par isométries. Zonoformes, zonoèdres et fonctions de type négatif.
- Choudhry, Ram Kishore. 6099: Existence of periodic orbits of the third kind in the elliptic restricted problem of three bodies and the stability of the generating solution. 7117: Distribution of periodic orbits of the third kind (symmetric periodic orbits) in the restricted problem of three bodies.
- Chover, Joshua. *See* Markov Processes and Potential Theory, Proc. Sympos., #3647.
- Chow, Hung-ching. *See* Hung-ching Chow sixty-fifth anniversary volume, #7.
- Chow, T. R. 6772: The equivalence of group invariant positive definite functions.
- Chowdhury, A. N. Roy. *See* Roy Chowdhury, A. N.
- Chowla, Paromita. 1345: †On the class-number of real quadratic fields. 187: (with Chowla, S.) Formulae for the units and class-numbers of real quadratic fields.
- Chowla, S. 2728: On the class-numbers of some function-fields  $y^2=f(x)$ , over  $GF(p)$ . II. 4032: On Kloostermann's sum. 5163: Stark's series expressed by theta-functions. 5164: Observation on a theorem of Stark. 2721: (with Ankeny, N. C.) Diophantine equa-tions in cyclotomic fields. 187: (with Chowla, P.) Formulae for the units and class-numbers of real quadratic fields.
- Chrislock, J. L. 2880: Semigroups whose regular representation is a right group.
- Christenson, C. O. 899: (with Osborne, R. P.) Pointlike subsets of a manifold.
- Christian, Ulrich. 6245: Über die Anzahl der Spitzen Siegelcher Modulgruppen. 6264: Über die erste Zeile paramodularer Matriz-en. 6296: Über elliptische Fixpunkte symplektischer Matrizen.
- Christilles, W. E. 149: On Fermat's conjecture.
- Chu, S. C. 1824: (with Metcalf, F. T.) Pointwise bounds for solutions of a class of functional equations.
- Chuckrow, Vicki. 2987: On Schottky groups with applications to kleinian groups.
- Chung, Kai Lai. 4842: ★A course in probability theory. 7002: Markov processes with infinities.
- Church, C. A., Jr. 133: (with Gould, H. W.) Lattice point solution of the generalized problem of Terquem and an extension of Fibonacci numbers.
- Chvál, Viliam. 2789: A contribution to the theory of space determin-ants.
- Chvátal, V. 6202: Remark on a paper of Lovász.
- Ciarlet, P. G. 4965: (with Schultz, M. H. and Varga, R. S.) Numerical methods of high-order accuracy for nonlinear boundary value prob-lems. II. Nonlinear boundary conditions.
- Ciesielski, Z. 4275: Semiclassical potential theory.
- Cifarelli, D. Michele. 4882: Una rappresentazione integrale delle probabilità di transizione di una cateria di Markov omogenea ed a incrementi indipendenti.
- Čičanov, H. A. 3212: A certain problem for a higher order equation of mixed type.



- Cima, Joseph A. 3007: (with Colwell, Peter) Blaschke quotients and normality.
- Čimev, Kiril. 1226: Some functions of  $P_2$ . 3038: Some combinatorial inequalities.
- Cimmino, Gianfranco. 6591: Espaces fonctionnels liés aux opérateurs différentiels linéaires. 7072: Un metodo Monte Carlo per la risoluzione numerica dei sistemi di equazioni lineari.
- Cimoca, Gh. 6652: (with Lupas, A.) Two generalizations of the Meyer-König and Zeller operator.
- Cin Hua Su. 1714: On asymptotic development for solutions of ordinary differential equations.
- Çinar, Erhan. 963: On the superposition of  $m$ -dimensional point processes.
- Činn, U. See Chinn, W. G.
- Cinquini, Silvio. 3169: Un teorema di unicità per sistemi di equazioni a derivate parziali quasi-lineari. 5448: A proposito dell'esistenza della soluzione del problema di Nicoletti per sistemi di equazioni differenziali ordinarie.
- Cioabanu, Liviu. 6629: (with Poteraşu, Florin; Oprea, Arsenie; Bercovici, Malca and Deleanu, Spiridon) Application of some classes of solutions to polyvibrating equations in the study of the dynamics of mechanisms and machines. I. 5430: (with Poteraşu, Florin; Oprea, Arsenie; Bercovici, Malca and Triandaf, Ana) Nuove classi di funzioni spettanti ai sistemi funzionali alle derivate totali. I. Funzioni ipergeometriche generalizzate.
- Čirkov, M. K. 2555: Probabilistic automata and probabilistic mappings.
- Cirau, Mircea. 5692: Sur la transformation de Fourier des fonctions distributionnelles composables.
- Čistjakov, A. L. 779: Infinite Hermitian matrices with operator coefficients.
- Claborn, Luther. 4057: Specified relations in the ideal group. 200: (with Fossum, Robert) Generalizations of the notion of class group.
- Clark, Colin. 1775: Inequalities of Poincaré type and applications to singular elliptic differential operators. 1989: Rellich's embedding theorem for a "spiny urchin". 2037: On relatively bounded perturbations of ordinary differential operators. 3445: On convex sets of finite width.
- Clark, Douglas N. 6667: On the spectra of bounded, Hermitian, Hankel matrices. 6668: Hankel forms, Toeplitz forms and meromorphic functions.
- Clark, W. Edwin. 1405: A note on semiprimary PP-rings.
- Clatworthy, W. H. 2617: The subclass of balanced incomplete block designs with  $r=11$  replications. 4922: On John's cyclic incomplete block designs. 3704: (with Lowyckij, R. J.) Comments on Takeuchi's table of difference sets generating balanced incomplete block designs.
- Claus, G. 156: Die Randmännigfaltigkeiten und die "tiefsten" Punkte des Fundamentalbereichs für drei Hilbertsche Modulgruppen.
- Clay, James R. 258: The near-rings on groups of low order. 1415: (with Anshel, Michael) Planarity in algebraic systems.
- Cleveland, R. 4623: (with Cleveland, S.) On the multiplicative extension property. II.
- Cleveland, S. 4623: (with Cleveland, R.) On the multiplicative extension property. II.
- Climescu, Al. 6321: On a class of algebras of order four.
- Cline, Randall E. 2769: Inverses of rank invariant powers of a matrix.
- Clos, Mike P. 4743: On real almost hermitian structures subordinate to almost tangent structures. 5810: Degenerate riemannian structures on certain  $G$ -structures.
- Clunie, J. 2995: (with Kövari, T.) On integral functions having prescribed asymptotic growth. II.
- Coburn, L. A. 4629: (with Berger, C. A.)  $C^*$ -algebras of translations and multipliers. 3364: (with Schechter, Martin) Joint spectra and interpolation of operators.
- Cochran, James Alan. 494: On the uniqueness of solutions of linear differential equations.
- Cochran, W. G. 3720: The effectiveness of adjustment by subclassification in removing bias in observational studies.
- Cody, W. J. 2410: (with Thacher, Henry C., Jr.) Rational Chebyshev approximations for the exponential integral  $E_1(x)$ .
- Coen, Salvatore. 3051: Sul rango dei fasci coerenti.
- Coffman, C. V. 3078: (with Ullrich, D. F.) On the continuation of solutions of a certain non-linear differential equation.
- Cofman, Judita. 819: Triple transitivity in finite Möbius planes. 6829: Transitivity on triangles in finite projective planes.
- Cohen, Arthur. 5984: A note on the admissibility of pooling in the analysis of variance. 7030: (with Blumenthal, Saul) Estimation of the larger of two normal means.
- Cohen, D. E. 1450: Characteristic subgroups of some relatively free groups. 4176: On abelian group algebras.
- Cohen, Elliott. 2737: Remarque élémentaire sur les anneaux principaux.
- Cohen, J. W. 2336: Single server queue with uniformly bounded virtual waiting time.
- Cohen, Jack K. 1906: (with Lewis, Robert M.) A ray method for the asymptotic solution of the diffusion equation.
- Cohen, Joel M. 3574: A spectral sequence automorphism theorem: Applications to fibre spaces and stable homotopy. 6932: The decomposition of stable homotopy.
- Cohen, P. J. 1547: A simple proof of the Denjoy-Carleman theorem.
- Cohn, Harry. 2295: On the asymptotic properties of systems with complete connections.
- Cohn, Harvey. 4015: Sphere fibration induced by uniformization of modular group.
- Cohn, John H. E. 1308: On  $m$ -tic residues modulo  $n$ . 4327: Zeros of solutions of ordinary second order differential equations.
- Cohn, P. M. 4121: Corrections: "On the free product of associative rings. III".
- Col, K. M. 3151: On the problem of stability of vibrations of quasi-linear autonomous systems with lag.
- Coifman, Ronald Raphaël. 4445: ★Pseudo-groupes de transformations et itération continue des fonctions réelles. 6687: Remarks on weak type inequalities for operators commuting with translations.
- Colby, R. R. 6322: (with Rutter, Edgar A., Jr.) Semi-primary QF-3 rings.
- Colebrook, C. M. 2713: (with Kemperman, J. H. B.) On non-normal numbers.
- Coleman, Bernard D. 4993: (with Gurtin, Morton E.) Corrections to: "Waves in materials with memory. III. Thermodynamic influences on the growth and decay of acceleration waves". 2487: (with Mizel, Victor J.) On the general theory of fading memory. 5499: (with Mizel, Victor J.) On the stability of solutions of functional-differential equations.
- Coleman, Sidney. 1125: Seven types of  $U(6)$ .
- Collatz, L. 2455: Monotonie bei gewöhnlichen Differentialgleichungen 4. Ordnung. 4939: Zur numerischen Behandlung der rationalen Tschebyscheff-Approximation bei mehreren unabhängigen Veränderlichen. 6016: Some inclusion theorems for matrix problems.
- Colwell, Peter. 5398: Cluster set theorems for uniformly convergent sequences of functions. 3007: (with Cima, Joseph A.) Blaschke quotients and normality.
- Combet, Edmond. 5020: Opérateurs sur l'espace des solutions du dalembertien statique.
- Comincioli, Valeriano. 3784: (with Gasparini, Angiola) Approssimazione mediante uno schema alle differenze finite delle soluzioni periodiche dell'equazione delle onde con termine dissipativo non lineare.
- Common, A. K. 386: Padé approximants and bounds to series of Stieltjes.
- Comstock, Craig. 566: Boundary layers for almost characteristic boundaries. 3143: On Lighthill's method of strained coordinates.
- Coneus, Paul. 4968: Numerical solution of the minimal surface equation.
- Conley, C. C. 3113: The retrograde circular solutions of the restricted three-body problem via a submanifold convex to the flow.
- Conner, P. E. 3579: The bordism class of a bundle space.
- Conrad, Paul. 118: Archimedean extensions of lattice-ordered groups. 1289: ★Introduction à la théorie des groupes réticulés. 1290: Lex-subgroups of lattice-ordered groups.
- Constantinescu, Corneliu. 3033: Some properties of the balayage of measures on a harmonic space. 1641: (with Boboc, N. and Cornea, A.) Semigroups of transitions on harmonic spaces.

- Constantinescu, Florin. 3351: Boundary values of analytic functions. 3352: Boundary values of analytic functions. II.
- Conti, Roberto. 3102: On the boundedness of solutions of ordinary differential equations.
- Conze, Jean-Pierre. 6920: Points périodiques et entropie topologique.
- Cook, C. H. 888: On continuous extensions. 5837: (with Fischer, H. R.) Regular convergence spaces.
- Cooke, C. H. 6558: (with Struble, R. A.) Perturbations of normal mode vibrations.
- Cooke, J. C. 5632: Note on a pair of dual trigonometric series.
- Cooke, Roger. 4508: Measurable functions and spherical summability of multiple Fourier series.
- Cooper, J. N. 7179: (with Restrepo, R. A.) Some problems of attack and defense.
- Coppage, W. E. 1391: (with Blakley, G. R. and Dixon, R. D.) A set of linearly independent permutation matrices.
- Coppel, W. A. 4398: Dichotomies and reducibility. II.
- Coppey, Laurent. 268: Existence et construction de sommes finies dans une catégorie d'applications inductives entre classes locales complètes et dans la catégorie des applications "continues" entre paratopologies.
- Copson, E. T. 877: ★Metric spaces.
- Cordes, Antoine. 3820: (with Rideau, G.) On some representations of the anticommutation relations. III.
- Corduneanu, Adrian. 5728: Le spectre de l'opérateur Volterra dans certains espaces de fonctions.
- Coret, Jean. 52: Formules stratifiées et axiome de fondation. 5090: Formules stratifiées et axiome de fondation.
- Corio, P. L. 6083: Construction of orthonormal angular-momentum operators.
- Cornea, Aurel. 455: (with Boboc, Nicu) Comportement des balayées des mesures ponctuelles. Comportement des solutions du problème de Dirichlet aux points irréguliers. 1641: (with Boboc, N. and Constantinescu, C.) Semigroups of transitions on harmonic spaces.
- Corner, A. L. S. 1470: (with Crawley, Peter) An abelian  $p$ -group without the isomorphic refinement property.
- Cornette, J. L. 6913: (with Girolo, J. E.) Connectivity retracts of finitely coherent Peano continua.
- Coroi-Nedelcu, Mariana. 5408: Development in series for  $\alpha$ -holomorphic functions in the space. 5409: Representations of spatial polynomials and their properties.
- Corrádi, Keresztély. 2669: (with Kátai, Imre) On the theory of quadratic residues.
- Cossey, John. 290: Laws in nilpotent-by-finite groups. 6357: On a problem of Hanna Neumann.
- Costa, A. Almeida. See Almeida Costa, A.
- da Costa, Newton C. A. 5091: Un nouveau système formel suggéré par Dedekind. 6216: Filtrés et idéaux d'une algèbre  $\mathcal{V}_\alpha$ . 5092: (with De Caroli, Alesio J.) Remarques sur les univers d'Ehresmann-Dedekind.
- Costinescu, Olga. 2949: Une mesure dans le plan associée à une classe d'applications isotoniques.
- Cotău, A. 1677: A quadrature formula with high degree of exactitude.
- Cotlar, M. 6780: (with Berenstein, C. A.; Kerzman, N. and Krée, P.) Some remarks on the Marcinkiewicz convexity theorem in the upper triangle.
- Cotsaftis, Michel. 6120: (with Lefèvre, Claude) Un critère de stabilité pour des systèmes à structure périodique ou presque périodique. 6121: (with Lefèvre, Claude) Une condition de stabilité globale des systèmes non linéaires.
- Cottle, R. W. 3841: On a problem in linear inequalities. 2515: (with Dantzig, George B.) Complementary pivot theory of mathematical programming.
- Coudron, A. 5315: Familles de complexes associées à une équivalence régulière d'un demi-groupe.
- Covikjan, L. H. 4972: An analogue of multilinear functions for approximation in  $W_\infty^2$ .
- Cowling, V. F. 2976: (with Royster, W. C.) Domains of variability for univalent polynomials.
- Cox, C. D. 3998: (with Van der Poorten, A. J.) On a sequence of prime numbers.
- Cox, D. R. 1654: (with Laub, Elizabeth) A note on the graphical analysis of multidimensional contingency tables.
- Cox, R. H. 6186: A proof of the Schroeder-Bernstein theorem. 2819: (with Beidleman, J. C.) Topological near-rings.
- Coxeter, H. S. M. 5767: The problem of Apollonius. 5768: The Lorentz group and the group of homographies. 6358: Finite groups generated by unitary reflections.
- Crabtree, D. E. 5237: A matrix identity.
- Crăciun, Constantin V. 5063: Domination et sous-langages dans la théorie analytique de la grammaire.
- Cramér, Harald. 964: A contribution to the multiplicity theory of stochastic processes.
- Crandall, Michael G. 6775: (with Phillips, Ralph S.) On the extension problem for dissipative operators.
- Cranley, R. 2439: (with Patterson, T. N. L.) The evaluation of multi-dimensional integrals.
- Craven, B. D. 6418: On the Gauss-Green theorem.
- Crawley, Peter. 1470: (with Corner, A. L. S.) An abelian  $p$ -group without the isomorphic refinement property.
- Creangă, I. 4105: Sur les opérateurs quadratiques dans les espaces linéaires.
- Creangă-Simboan, A. 6429: Vector sum functions.
- Creaswell, M. J. 46: Propositional identity. 2584: Some further semantics for deontic logic.
- Cristescu, Romulus. 5075: (with Andreian Cazacu, Cabria) Alexandru Ghika (1902-1964).
- Crowe, Michael J. 5070: ★A history of vector analysis. The evolution of the idea of a vectorial system.
- Crstici, Borislav. 6631: (with Gheorghiu, Octavian) Quelques considérations sur certaines équations fonctionnelles du troisième ordre. 6630: (with Tudor, Gh.) Une formule de composition semi-groupe avec application au calcul de certaines intégrales impropres.
- Cruceanu, Șt. 3330: (with Șchiop, Alex. I.) The relation between pseudo-resolvent and a problem of optimum.
- Cruceanu, V. 6866: (with Miron, R.) Sur les connexions compatibles à une structure métrique ou presque symplectique.
- Csáki, E. 3669: On the number of intersections between two empirical distribution functions. 6983: An iterated logarithm law for semimartingales and its application to empirical distribution function.
- Császár, Klára. 876: Untersuchungen über Trennungsaixiome.
- Csörgő, Miklós. 3675: On some limit theorems involving the empirical distribution function.
- Čudnovskij, G. V. 6167: Some results in the theory of infinitely long expressions.
- Čuhrukidze, N. K. 6505: Asymptotic expansions for spherical Legendre functions of imaginary argument.
- Čukanova, T. I. 474: Investigation of the zeros of the transcendental function  $g(z)I_1'(z) + h(z)I_1(z)$ .
- Čulík, I. I. 3044: (with Kardaš, A. I. and Kostova'kil, O. M.) Newton majorants and diagrams for functions of several variables.
- Čumakin, M. E. 5716: A class of generalized resolvents of an isometric operator.
- Cunningham, John. 6444: ★Complex variable methods in science and technology.
- Čurakova, S. V. 802: (with Gabasov, R.) On necessary conditions for optimality in systems with lag.
- Curjel, C. R. 6929: On the  $H$ -space structures of finite complexes. 5868: (with Arkowitz, M.) On maps of  $H$ -spaces.
- Curtis, Charles W. 220: ★Linear algebra: An introductory approach.
- Curtis, E. Count. 3639: A potential theory for supermartingales.
- Curtis, Morton L. 900: Smoothness conditions on continua in euclidean space.
- Curzio, Mario. 4163: Sui gruppi di torsione a fattoriali abeliani. 4694: Una generalizzazione degli spazi di Sperner.
- Cvetkova, A. I. 3482: The compactness of a family of surfaces with a countable set of decompositions.
- Czerwik, S. 4447: On sign-preserving solutions of a linear functional equation. 5555: On a recurrence relation.
- Dacić, R. 3509: Choice topology. 6371: A structure on a set of subsets.

- Da Costa, Newton C. A. *See* da Costa, Newton C. A.
- Dacunha-Castelle, Didier. 3654: (with Bretagnolle, Jean) Sur une classe de marches aléatoires.
- Dade, E. C. 1490a: Degrees of modular irreducible representations of  $p$ -solvable groups. 1490b: Correction to my note: "Degrees of modular irreducible representations of  $p$ -solvable groups".
- Dahiya, R. S. 1907: A theorem in bilateral calculus.
- Dahlberg, Erling. 517: On Lyapunov functions for linearly indeterminate fixed points.
- Dalley, G. 7122: (with Kirmser, Ph. G.) On an extension of Hill's method for solution of matrix differential equations with periodic coefficients.
- Dajović, V. 1619: Some properties of typically real functions.
- Dalal, S. S. 4254: Über die Ordnung ganzer Funktionen.
- Dale, J. C. 7058: (with Balch, H. T.; Eddy, T. W. and Lauver, R. M.) Estimation of the mean of a stationary random process by periodic sampling.
- Daleckiĭ, Ju. L. 6574: Stable integral varieties of a nonlinear differential equation in a Banach space. 1796: (with Zaplitna, A. T.) Integrals over a space of trees connected with non-linear parabolic equations.
- van Dalen, Dirk. 1230: A note on spread-cardinals.
- Daley, D. J. 5945: Extinction conditions for certain bisexual Galton-Watson branching processes. 5955: (with Moran, P. A. P.) Two-sided inequalities for waiting time and queue size distributions in  $GI/G/1$ .
- Dall'Aglio, Giorgio. 2296: Osservazioni sulla convergenza in distribuzione e in probabilità.
- D'Ambrosio, Ubratan. 6806: Semicontinuity of multiple integrals of the calculus of variations in parametric form.
- Damköhler, Wilhelm. 5747: Coupled variational problems, and stationary extremals in the large.
- Danek, Otakar. 7119: Problèmes aux limites avec des discontinuités additionnelles.
- Daniel, Edward Christopher. 644: On the absolute Cesàro summability factors of infinite series.
- Danielson, Sture. 1259: (with Borenus, Gustaf and Janason, Birger) Number of ways for choosing an alternative. A combinatorial problem related to Eulerian numbers.
- Daniĭluk, I. I. 456: An existence theorem in a certain nonlinear problem with free boundary. 6802: The boundedness of a singular integral operator in  $L_p$  spaces with weight. 5078: (with Koroljuk, V. S.; Mitropol'skiĭ, Ju. O.; Skorohod, A. V. and Jadrenko, M. I.) Iosif Il'in Gihman: On the occasion of his 50th birthday.
- Danskin, John M. 3843: ★The theory of max-min and its application to weapons allocation problems.
- Dantzig, George B. 2515: (with Cottle, Richard W.) Complementary pivot theory of mathematical programming. 6103: (with Van Slyke, R. M.) Generalized upper bounding techniques.
- Da Prato, G. 793: Semigruppı regularizzabili. 6794: Somma di generatori infinitesimali di semigruppı analitici. 570: (with Giusti, E.) Equazioni di Schrödinger e delle onde per l'operatore di Laplace iterato in  $L^p(\mathbb{R}^n)$ . 5532: (with Giusti, E.) Equazioni di evoluzione in  $L^p$ .
- Dark, R. S. 1446: On subnormal embedding theorems for groups. 2844: A prime Baer group.
- Daróczy, Z. 3234: Über eine Funktionalgleichung im Hilbertraum.
- Darroch, J. N. 3649: (with Morris, K. W.) Some passage-time generating functions for discrete-time and continuous-time finite Markov chains.
- Darwin, J. T., Jr. 2926: Functions which preserve Lebesgue measure.
- Das, G. 3239: Some theorems on absolute Nörlund summability. 4458: Discontinuous Riesz means. 6645: On functional methods.
- Das, M. N. 7049: (with Dey, A.) Corrections to: "Group divisible rotatable designs".
- Das, Minaketan. 3338: Properties of certain spaces of entire functions.
- Das, Phulendu. 6392: A note on homotopy and isotopy of topological groupoids.
- Dash, P. C. 6461: (with Kamthan, P. K.) On the derivatives of an entire function.
- Dathuaviĭ, G. *See* Datuaviĭ, G. S.
- Datko, R. 6795: An extension of a theorem of A. M. Lyapunov to semi-groups of operators.
- D'Atri, Joseph E. 5899: Homomorphisms of continuous pseudogroups.
- Datuaviĭ, G. S. 1093: On the numerical solution of a polyharmonic system. 2476: On the numerical solution of a system of differential equations of parabolic type.
- Daugavet, V. A. 2427: A variant of the staircase method for finding the first few eigenvalues of a symmetric matrix.
- Davenport, H. 2729: Bases for finite fields. 6249: A note on Thue's theorem. 1321: (with Schmidt, W. M.) A theorem on linear forms.
- David, F. N. 3614: (with Barton, D. E.) Sequential occupancy with classification.
- Davies, E. B. 112: The existence of characters on topological lattices. 6764: On the Borel structure of  $C^*$ -algebras.
- Davies, Roy O. 734: A norm satisfying the Bernstein condition. 6424: A theorem on the existence of non- $\sigma$ -finite subsets.
- Davis, A. W. 1000: A system of linear differential equations for the distribution of Hotelling's generalized  $T_0^2$ . 5946: Branching-diffusion processes with no absorbing boundaries. II. 2349: (with Hill, G. W.) Generalized asymptotic expansions of Cornish-Fisher type.
- Davis, Herbert T. 1050: (with Jones, Richard H.) Estimation of the innovation variance of a stationary time series.
- Davis, Morton. 5935: (with Maschler, Michael) Existence of stable payoff configurations for cooperative games.
- Davison, T. M. K. 168: A Tauberian theorem and analogues of the prime number theorem.
- Da ydov, È. G. 4375: Pontrjagin's maximum principle for processes with smoothly varying control regions.
- Davydov, N. A. 5569: Inclusion and equivalence of Toeplitz methods of summation of series.
- Dawson, David F. 635: Remarks on some convergence conditions for continued fractions. 1447: On absolutely independent group axioms.
- Dawson, Donald A. 5937: Equivalence of Markov processes.
- Dax, Jean-Pierre. 6946: Généralisation des théorèmes de plongement de Haefliger à des familles d'applications dépendant d'un nombre quelconque de paramètres.
- Day, James Thomas. 349: †On the convergence of Taylor series for functions of  $n$  variables.
- Dayal, S. 5593: On Banach limit of Fourier series and conjugate series. I.
- Daykin, D. E. 6407: (with Ang, D. D.) Some fixed point theorems and convolution equations. 3992: (with Dresel, L. A. G.) Identities for products of Fibonacci and Lucas numbers. 1541: (with Eliezer, C. J.) Generalizations and applications of Cauchy-Schwarz inequalities. 1304: (with Hilton, A. J. W.) Bases for infinite intervals of integers.
- Dazard, Pierre. 5829: Variétés finialériennes à géodésiques fermées.
- Dean, R. A. 1279: (with Keller, Gordon) Natural partial orders.
- De Barra, G. *See* de Barra, G.
- Debnath, L. 4514: Some operational properties of Hermite transform.
- De Branges, Louis. *See* de Branges, Louis.
- Debreu, Gerard. 3835: Integration of correspondences.
- De Bruijn, N. G. *See* de Bruijn, N. G.
- De Bruyn, G. F. C. *See* de Bruyn, G. F. C.
- De Caroli, Alesio J. 5092: (with da Costa, Newton C. A.) Remarques sur les univers d'Ehresmann-Dedecker.
- Decuyper, Marcel. 3461: Suite de Laplace doublement inscrite dans une suite de Laplace.
- De Floriani, Walter. 948: Distribuzione circolare normale.
- Degen, W. 2106: Zur projektiven Kinematik der Hüllflächen gewisser Hyperquadricken.
- De Giorgi, Ennio. 3411: Un esempio di estremali discontinue per un problema variazionale di tipo ellittico.
- Degoli, Lando. 4705: Sulle varietà  $V_g$  i cui spazi tangenti ricoprono una varietà  $W$  di dimensione inferiore all'ordinaria.
- De Groot, J. *See* de Groot, J.
- Dejean, Françoise. 7219: Une propriété de certaines parties d'un Monoïde libre.
- De Jong, Frits J. *See* de Jong, Frits J.
- Dekker, T. J. 6026: Newton-Laguerre iteration.
- Dekrét, A. 5799: Note on a hyperbolic pair of line complexes in  $P_3$ .
- Delange, Hubert. 2913: Caractérisations des fonctions circulaires.



- 4037: Sur un théorème de Rényi. II. See also Séminaire Delange-Pisot-Poitou, #6140a-b.
- De la Pradelle, Arnaud. See de la Pradelle, Arnaud.
- Deleanu, Aristide. 2229: (with Burgheloa, Dan) The spectral sequence of Shih Weishu and the generalized cohomology theories. II.
- Deleanu, Spiridon. 6620: (with Ciobanu, Liviu; Poteraşu, Florin; Oprea, Arsenie and Bercovici, Malca) Application of some classes of solutions to polyvibrating equations in the study of the dynamics of mechanisms and machines. I.
- Dellacherie, Claude. 4584: Un complément au théorème de Weierstrass-Stone. 5924: Ensembles mesurables aux coupes dénombrables.
- Dell'Antonio, G. F. 7151: Structure of the algebras of some free systems.
- De Lucia, Paolo. See de Lucia, Paolo.
- Delves, L. M. 3749: (with Lyness, J. N.) A numerical method for locating the zeros of an analytic function. 4962: (with Lyness, J. N.) On numerical contour integration round a closed contour.
- De Marco, Giuseppe. 5368: Una disuguaglianza sulle sezioni di insiem  $H^n$ -rettificabili.
- Demazure, M. 4082: Groupes réductifs—généralités. 4083: Automorphismes des groupes réductifs. 4631: Une démonstration algébrique d'un théorème de Bott. 5227: Groupes réductifs; unicité des groupes épinglés. 6291: Extensions infinitésimales.
- Dembowski, Peter. 2975: (with Ostrom, T. G.) Planes of order  $n$  with collineation groups of order  $n^2$ .
- Demčenko, T. I. 536: (with Koroběnik, Ju. F.) The solvability of a class of differential equations of infinite order.
- De Meersman, R. 228: A note on circulant matrices and matrices with linear elementary divisors. 1094: The method of Garabedian. Some extensions.
- Demenin, O. M. 4862: The determination of probability measures by means of nonlinear and absolutely continuous transformations.
- DeMeyer, Frank R. 4122: The trace map and separable algebras.
- Demidovič, B. P. 1716: ★Lectures on the mathematical theory of stability.
- Deming, Robert W. 2173: Some point-set properties and the edge path group of a generalized uniform space.
- Demir, Hüseyin. See Kutuzov, B. V., #4693a-c.
- Dem'janenko, V. A. 1315: L. Euler's hypothesis. 2751: An estimate of the remainder term in Tate's formula. 4007: The indeterminate equations  $x^0 + y^0 = az^2$ ,  $x^0 + y^0 = az^3$ ,  $x^4 + y^4 = az^4$ .
- Dem'janov, V. F. 3416: On the directional differentiation of the maximum function. 6814: The solution of some optimal control problems. 6815: (with Rubinov, A. M.) Minimization of functionals in normed spaces.
- Dem'janovič, Ju. K. 4973: Estimates for the speed of convergence of certain projection methods of solving elliptic equations. 4978: (with Dem'janovič, V. K.) The rate of convergence of projection methods for parabolic equations.
- Dem'janovič, V. K. 4978: (with Dem'janovič, Ju. K.) The rate of convergence of projection methods for parabolic equations.
- De Morgan, Augustus. 6147: ★"On the syllogism" and other logical writings.
- Demut, Osval'd. See Demuth, Osvald.
- Demuth, Osvald. 65: A necessary and sufficient condition for the Riemann integrability of constructive functions.
- Dem'yanov, V. F. See Dem'janov, V. F.
- Denčev, R. 776: The stability of linear equations on a compactum.
- Dené, J. See Dénes, József.
- Dénes, József. 6391: Multiplication tables for finite quasigroups and semigroups. 5282: (with Schermann, K.) Similar permutations in the alternating group.
- Denisko, S. V. 3455: (with Prihoda'ka, O. I.)  $\Delta$ -surfaces of a rectilinear congruence.
- Denjoy, Arnaud. 6188: Sur les ensembles dispersés.
- Denkowski, Zdzisław. 495: On the boundary value problems for the ordinary differential equation of second order.
- Dennemeyer, Rene. 555: ★Introduction to partial differential equations and boundary value problems.
- Dennis, J. E., Jr. 4957: On Newton-like methods.
- Dennis, S. C. R. 492: (with Naylor, D.) On a singular eigenvalue problem.
- Denniston, R. H. F. 2976: Subplanes of the Hughes plane of order 9.
- Dennler, Günther. 5559: Bestimmung sämtlicher meromorpher L5-sungen der Funktionalgleichung  $f(z) = k^{-1} \sum_{k=1}^n f((z+k)/k)$ .
- Derdérian, J.-C. 327: (with Thierrin, G.) Demi-groupes séparateurs.
- Derzko, N. A. 4665: An integral representation for the product of spectral measures.
- De Sam Lazaro, José. See de Sam Lazaro, José.
- De Sapio, R. 6942: Almost diffeomorphisms of manifolds.
- De Simon, Luciano. See de Simon, Luciano.
- Deskins, W. E. 2858: A characterization of finite supersolvable groups.
- Desoer, C. A. 4374: (with Baker, R. A.) Asymptotic stability in the large of a class of single-loop feedback systems. 3854: (with Wu, M. Y.) Stability of multiple-loop feedback linear time-invariant systems.
- Despotović, D. 6703: (with Stanković, B.) Continuité d'une fonction opératoire.
- Detchemendy, D. 3871: (with Bellman, R.; Kagiwada, H. and Kalaba, R.) On the identification of systems and the unscrambling of data. III. One-dimensional wave and diffusion processes.
- Detraz, Jacqueline. 6759: Sous-algèbres de codimension 1 et dérivations dans les algèbres de Banach commutatives.
- Detman, J. W. 560: (with Bragg, L. R.) Related problems in partial differential equations. 561: (with Bragg, L. R.) An operator calculus for related partial differential equations. 3170: (with Bragg, L. R.) Related partial differential equations and their applications.
- Deuring, Max. 4044: Imaginäre quadratische Zahlkörper mit der Klassenzahl Eins. 4106: ★Algebren.
- Deussen, P. 74: Some results on the set of congruence relations in a finite, strongly connected automaton.
- Deutsch, Frank. 5583: On uniform approximation with interpolatory constraints.
- Devadze, H. M. 2648: Order-defining relations in the ordered semi-group of all binary relations in a finite set.
- De Valcourt, B. Abel. See de Valcourt, B. Abel.
- De Vecchi, Bruno. See de Vecchi, Bruno.
- Devidé, Vladimir. 2600: A remark concerning the foundation of the theory of recursive functions.
- Devillers, R. E. 4883: Sommabilité et potentiel dans les chaînes de Markov récurrentes.
- Devnatis, Allen. 2911: ★Advanced calculus.
- De Vito, C. L. 4543: A completeness theorem for locally convex spaces and some applications.
- De Vito, Luciano. See de Vito, Luciano.
- DeVore, Ronald. 5584: One-sided approximation of functions.
- De Vroedt, C. See de Vroedt, C.
- De Wilde, Marc. 5668: Théorème du graphe fermé et espaces à réseau absorbant.
- Dey, A. 7049: (with Das, M. N.) Corrections to: "Group divisible rotatable designs".
- Dharmadhikari, S. W. 4848: A property of non-negative random variables. 6973: A uniqueness result for compound normal and compound exponential distributions. 5925: (with Fabian, V. and Jogdeo, K.) Bounds on the moments of martingales.
- Diamond, Harold George. 4625: Characterization of derivations on an algebra of measures. II.
- Diananda, P. H. 2855: Critical subsets of finite abelian groups.
- Dias Agudo, F. R. 3193: Modern aspects of the theory of elliptic operators.
- Dickey, R. W. 4318: A boundary value problem for a class of nonlinear ordinary differential equations. 7130: An improved method for the numerical solution of the suspension bridge deflection equations.
- Dickman, R. F., Jr. 894: Some characterizations of the Froudenthal compactification of a semicompact space. 3535: Unified spaces and singular sets for mappings of locally compact spaces.
- Dickson, Spencer E. 5252: Decomposition of modules. II. Rings without chain conditions. 2834: (with Alin, J. S.) Goldie's torsion theory and its derived functor.
- Dickson, T. J. 6839: (with Barnes, E. S.) Corrigendum to: "Extreme coverings of  $n$ -space by spheres".
- Dicuozzo, Vincenzo. 4695: Sulla costruzione gruppale di una geometria metrica a debole struttura d'incidenza. 6818: Sulla fondazione della geometria metrica assoluta in uno spazio di dimensione  $n$  mediante il concetto di simmetria.

- Didik, V. Ju.** 718: On solving linear integral equations with retarded argument. 4523: The solution of a certain class of nonlinear integral equations.
- tom Dieck, Tammo.** 5881: Über charakteristische Bordismen-Klassen.
- Diem, J. E.** 2653: A radical for lattice-ordered rings.
- Dietz, K.** 2537: (with Downton, F.) Carrier-borne epidemics with immigration. I. Immigration of both susceptibles and carriers.
- Dieudonné, Jean.** 2557: ★ Calcul infinitésimal.
- Dikshit, G. P.** 3041: (with Lal, Jitendra) On analytic functions of several complex variables.
- Dikshit, H. P.** 5598: On the absolute Nörlund summability of a Fourier series. I.
- Dillon, J. F.** 1261: (with Roselle, D. P.) Eulerian numbers of higher order.
- Dimiev, S.** 2874: On generating sets in certain semi-groups and their automorphisms.
- Dinaburg, E. I.** 5883: An example of the computation of topological entropy.
- Dinca, Alexandru.** 3879: Sur quelques problèmes d'analyse contextuelle métrique.
- Dinculeanu, N.** 6726: Integral representation of dominated operations on spaces of continuous vector fields. 1548: (with Foias, C.) Algebraic models for measures.
- Dinghas, Alexander.** 4290: Über das Schwarzsche Lemma und verwandte Sätze. 6473: Zur Charakterisierung harmonischer und subharmonischer Funktionen durch Mittelungsprozesse.
- Dingle, R. B.** 1104: (with Morgan, G. J.) WKB methods for difference equations. I, II.
- Di Paola, Robert A.** 2001: A note on diminishing the undecidable region of a recursively enumerable set. 6181: On sets represented by the same formula in distinct consistent axiomatizable Rosser theories.
- Distefano, Nestor.** 3290: A Volterra integral equation in the stability of some linear hereditary phenomena.
- Ditchev, Ryszard.** 6819: (with Glibowski, Edmund and Kościł, Stanisław) On a system of fundamental concepts for elementary geometry.
- Diizian, Zeev.** 3283: On a class of convolution transforms. 6700: Gap formulae for the Weierstrass transforms.
- Dixmier, Jacques.** 700: Sur les automorphismes des algèbres de Banach. 5703: Ideal center of a  $C^*$ -algebra.
- Dixon, John D.** 90: The maximum order of the group of a tournament. 325: High speed computation of group characters. 5275: Corrigenda: "Complements of normal subgroups in infinite groups". 6372: The Fitting subgroup of a linear solvable group. 6373: Normal  $p$ -subgroups of solvable linear groups.
- Dixon, R. D.** 1391: (with Blakley, G. R. and Coppage, W. E.) A set of linearly independent permutation matrices.
- Djabali, Mahmoud.** 4110: Demi-groupes nilpotents et radical d'un anneau noethérien ou artinien.
- Djad'kin, I. G.** 3736: (with Zukova, S. A.) The formulation of a problem for the Schrödinger equation and an algorithm for its solution by the Monte Carlo method.
- Djeković, D. Z.** See Đoković, Dragomir Z.
- Djorup, F. M.** 6385: (with Appel, K. I.) On the equation  $z_1 z_2 \dots z_n = y^n$  in a free semigroup.
- Djubin, G. N.** 6111: A certain class of games on the unit square.
- Djubjuk, P. E.** 5290: The number of subgroups of a finite abelian group. I. 5291: The number of subgroups of a finite abelian group. II.
- Dlab, Vlastimil.** 3978: On a family of simple ordered groups. 4109: Distinguished sets of ideals of a ring.
- Do, Claude.** 6612a: Un théorème d'existence pour le problème de l'équilibre d'un matériau de type harmonique. 6612b: Théorème d'énergie et théorème d'unicité pour le problème aux déplacements d'un matériau de type harmonique. 6612c: Régularité de la solution faible du problème de l'équilibre d'un matériau de type harmonique.
- Dobó, Andor.** 4611: (with Szajecz, Sándor) The application of the Mikusiński operational calculus to the approximate solution of  $n$ th order linear inhomogeneous differential equations with variable coefficients.
- Dobrohotov, I. S.** 1013: Tests of a general linear hypothesis with unknown weights of observations.
- Dobroš, M.** 2464: The method of conjugate gradients in a cross-iteration scheme for Dirichlet's difference problem.
- Dobrušin, R. L.** 6989: Description of a random field by means of conditional probabilities and conditions for its regularity.
- Dobson, A. J.** 3933: A note on Stirling numbers of the second kind.
- Doetsch, Gustav.** 701: ★ Anleitung zum praktischen Gebrauch der Laplace-Transformation und der Z-Transformation.
- Dokas, Lambros.** 6212: Une application du complété de Krasner sur les nombres de Prüfer. 5195: (with Krasner, Marc) Nombres semi-prüferiens.
- Doković, Dragomir Z.** 1830: Triangle functional equation and its generalization. 1908: Two operator formulae and their application. 2253: A problem in geometrical probability. 4302: Note on a theorem on singular matrices.
- Doksum, Kjell.** 2356: Correction to: "Asymptotically optimal statistics in some models with increasing failure rate averages". 3696: Distribution-free statistics based on normal deviates in analysis of variance.
- Dolan, P.** 5021: A singularity free solution of the Maxwell-Einstein equations.
- Dolganova, S. M.** 4502: The summation of principal vector expansions of certain nonselfadjoint differential operators.
- Dolotkazin, A. H.** 4138: The Lie algebras  $U_D(x_1, \dots, x_n)$ .
- Dominyák, Imre.** 4715: On the density of stable systems of circles.
- Domorjad, A. P.** 3798: The graphical solution of trinomial and tetranomial algebraic equations with complex coefficients.
- Domračeva, G. I.** 5673: Certain remarks on lattice-ordered algebras and their ideals.
- Domílak, Ju. I.** 4435: Some questions in the theory of evolution equations and their application to quasilinear, strongly parabolic systems. 4379 (with Čaryev, A.) Certain conditions for the unboundedness of solutions of differential equations in Hilbert space.
- Donath, W. E.** 5961: Statistical properties of the placement of a graph.
- Dong Guang-chang.** See Tung Kuang-ch'ang.
- Doplicher, S.** 4630: (with Kastler, D.) Ergodic states in a non commutative ergodic theory. 1136: (with Powers, R. T.) On the simplicity of the even CAR algebra and free field models.
- Düpp, Klemens.** 6182: Die Unentscheidbarkeit der Grzegorzcyk-Klassen.
- Dorfman, I. Ja.** 742: Two classes of functions on Hilbert space.
- Dorodnicyn, A. A.** 2470: (with Meller, N. A.) Some approaches to solving stationary Navier-Stokes equations.
- Dorroh, J. R.** 4777: Semi-groups of maps in a locally compact space. 6796: Some classes of semi-groups of nonlinear transformations and their generators.
- Dos Santos, José Ribeiro.** See Ribeiro Dos Santos, José.
- Dotson, W. G., Jr.** 2923: Decomposability of positive functions on  $P^n$ .
- Douglas, R. G.** 4648: Toeplitz and Wiener-Hopf operators in  $H^+ + C$ .
- Downton, F.** 2537: (with Dietz, F.) Carrier-borne epidemics with immigration of both susceptibles and carriers.
- Doyen, Jean.** 3944: Constructions groupales d'espaces linéaires finis.
- Doyle, P. H.** 896: On shrinking arcs in metric spaces. 4793: On monotone unions of manifolds. 2233: (with Moran, Daniel A.) A short proof that compact 2-manifolds can be triangulated.
- Drabbe, J.** 2639: Treillis propositionnels finis. 2640: Démonstration algébrique du théorème de Glivenko et des théorèmes apparentés. 2645: Les  $S$  4-algèbres finies. 5086: Une propriété des matrices caractéristiques des systèmes  $S_1, S_2$  et  $S_3$ .
- Dragan, Irinel.** 7169: Sur les fonctions lexicographiques monotones croissantes et leurs applications à la résolution des programmes linéaires en variables binaires.
- Dráglá, Pavel.** 4719: Sur un couple de suites de Laplace. 6637: (with Vasić, P. M.) Équations fonctionnelles cycliques linéaires non homogènes.
- Drago, Antonino.** 180: Rules to find the partition of  $\pi$  with maximum l.c.m.
- Dragomir, A.** 5231: On the generalized inverse of a matrix.
- Dragomir, P.** 6311: (with Neumann, M.) On integral [rational] multiples of the unit element in a ring [field].

- Drake, D. 3495: (with Lim, K. L.) Some theorems on the connectedness of generalized topological spaces.
- Drake, David A. 3432: Projective extensions of uniform affine Hjelmslev planes.
- Draper, Norman R. 3691: (with Guttman, Irwin) Some Bayesian stratified two-phase sampling results. 1037: (with Mitchell, Toby J.) Construction of the set of 256-run designs of resolution  $\geq 5$  and the set of even 512-run designs of resolution  $\geq 6$  with special reference to the unique saturated designs. 1036: (with Stoneman, David M.) Response surface designs for factors at two and three levels and at two and four levels. 2369: (with Tiao, G. C.) Bayesian analysis of linear models with two random components with special reference to the balanced incomplete block design.
- Drasin, David. 1607: Tauberian theorems and slowly varying functions. 5384: Cusp forms and Poincaré series.
- Dresel, L. A. G. 3992: (with Daykin, D. E.) Identities for products of Fibonacci and Lucas numbers.
- Dress, Andreas. 6271: Über Homomorphismen, die von Bewertungen induziert werden.
- Dress, François. 1364: Familles de séries formelles et ensembles de nombres algébriques. 2703: Sur l'équirépartition de certaines suites  $(x_n)$ . 4065: Familles fermées de séries formelles.
- Drinl, Miloslav. 7163: (with Hanš, Otto) On a randomized optimization procedure.
- Drobotenko, V. S. 2873: (with Rud'ko, V. P.) Representations of a cyclic group by groups of automorphisms of a certain class of modules.
- van Drooge, Dick. 5244: Les algèbres de Clifford de formes quadratiques d'indice maximal.
- Dzad, Ju. A. 6316: (with Kiričenko, V. V.) Representations of completely decomposable rings. 5253: (with Turčin, V. M.) The number of modules of representations in genus for integral matrix rings of the second order.
- Drožžinov, Ju. N. 1799: (with Vladimirov, V. S.) The generalized Cauchy problem for ultraparabolic equations.
- Druškova, T. A. 6532: The algebraic integrals of the differential equation  $dy/dx = (\sum_{j=0}^p A_j x^j y^j) / (\sum_{j=0}^p B_j x^j y^j)$ .
- Dryja, M. 1100: The uniform convergence of schemes with splitting operators.
- Dubey, Satya D. 4902: Transformations for estimation of parameters.
- Dubikajtis, L. 817: (with Guściora, H.) On a hyperbolic model of the solid Laguerre geometry.
- Dubins, Lester E. 2342: A simpler proof of Smith's roulette theorem. 5036: Subfair casino functions are superadditive.
- Dubinskaja, L. A. 5386: The coefficients of expansions in terms of a certain function system.
- Dubinskii, Ju. A. 626: An operator scheme and the solvability of some quasilinear equations in mechanics. 4495: Quasilinear elliptic and parabolic equations of arbitrary order.
- Dubnov, Ja. S. 3420: ★Errors in geometrical proofs.
- Dubnow, J. S. See Dubnov, Ja. S.
- Dubols, D. W. 310: Applications of analytic number theory to the study of type sets of torsionfree Abelian groups. I. 5292: Applications of analytic number theory to the study of type sets of torsionfree Abelian groups. II.
- Dubreil, P. See Séminaire P. Dubreil, M.-L. Dubreil-Jacotin, L. Lesieur et C. Pisot, #6139a-b.
- Dubreil-Jacotin, Marie-Louise. 119: Quelques propriétés des groupes ordonnés liées à la considération de fuseaux. See also Séminaire P. Dubreil, M.-L. Dubreil-Jacotin, L. Lesieur et C. Pisot, #6139a-b.
- Dubuc, Serge. 5669: Le maximum d'une fonction quasi-convexe.
- Dueň, Miloslav. 5353: On the projective tensor product of vector-valued measures. 5352: (with Kluvánek, Igor) Inductive tensor product of vector-valued measures.
- Duda, Roman. 3515: (with Telgársky, Rastislav) On some covering properties of metric spaces.
- Dudley, R. M. 5900: Distances of probability measures and random variables.
- Duff, G. F. D. 357: Differences, derivatives, and decreasing rearrangements.
- Duffin, R. J. 3126: Stability of systems with non-linear damping. 3812: Estimating Dirichlet's integral and electrical conductance for systems which are not self-adjoint. 439: (with Peterson, Elmor L.) The discrete analogue of a class of entire functions.
- Dufo, Marie. 5931: (with Azéma, Jacques and Revuz, Daniel) Théorèmes limites pour les processus de Markov récurrents.
- Dufresnoy, Jacques. 5909: Autour de l'inégalité de Kolmogorov.
- Duimio, F. 5324: Irreducible representations of  $U_n$  and  $U_{p,n-p}$ .
- Dul'keev, È. 4528: On the theory of nonlinear singular integro-differential equations. 6719: On the theory of nonlinear singular integro-differential equations with a small parameter.
- Dumas, Maurice. 5993: Processus pour tester l'appartenance d'une série statistique à une loi de probabilité.
- Dumir, Vishwa Chander. 4011a: Positive values of inhomogeneous quaternary quadratic forms. I. 4011b: Positive values of inhomogeneous quaternary quadratic forms. II.
- Duncan, R. L. 6257: Some continuity properties of the Schreiermann density. 5157: (with Brown, J. L., Jr.) A generalized Weyl criterion.
- Dunnage, J. E. A. 5903: The number of real zeros of a class of random algebraic polynomials.
- Dunninger, D. R. 6475: On some uniqueness theorems for nonlinear boundary problems. 1807: (with Zachmanoglou, E. C.) The condition for uniqueness of solutions of the Dirichlet problem for the wave equation in coordinate rectangles.
- Dunsmore, I. R. 1006: (with Aitchison, J.) Linear-loss interval estimation of location and scale parameters.
- Dunwoody, M. J. 291: On product varieties.
- Durand, Felipe. 6387: (with Laplaza, Miguel L.) Characterizations of the relations of Green in certain semigroups.
- Durbin, J. 1001: The probability that the sample distribution function lies between two parallel straight lines.
- Durbin, John R. 2859: Residually central elements in groups.
- Durdil, Jiří. 3406: On the differentiability of Urysohn and Nemyckij operators.
- Du Val, Patrick. 1365: The modular curve for elliptic function transformations of order four.
- Duval, P. F., Jr. 6938: Topological embeddings in codimension one.
- Dwass, Meyer. 3618: Poisson recurrence times. 5910: A theorem about infinitely divisible distributions.
- Dwinger, Ph. 1431: On a class of reflective subcategories.
- Dwivedi, Shankar Hari. 4258: Proximate orders.
- Dwork, Bernard M. 216: Analytic theory of the zeta function of algebraic varieties.
- Dybin, V. B. 1917: An exceptional case for a dual integral equation of convolution type. 4513: The Wiener-Hopf integral operator in classes of functions with polynomial behavior at infinity.
- Dye, R. H. 1468: The simple group  $PH(8, 2)$  of order  $2^{12} \cdot 3^5 \cdot 5^2 \cdot 7$  and the associated geometry of triality.
- Dyer, Eldon. 2216: The functors of algebraic topology.
- Dyer, R. H. 5545: (with Edmunds, D. E.) Lower bounds for solutions of the Navier-Stokes equations.
- Dymanov, R. G. 558: Singular points for three-dimensional systems of total differential equations in four-dimensional space.
- Dynkin, E. B. 4884: Letter to the editors. 3884a: (with Uspenskii, V. A.) ★Map coloring problems. Mathematical conversations. I. 3884b: (with Uspenskii, V. A.) ★Problems from number theory. Mathematical conversations. II. 3884c: (with Uspenskii, V. A.) ★Random walks. Mathematical conversations. III.
- Dylin, O. A. 4418: An operational method of solving mixed problems for linear differential equations of parabolic type with discontinuous coefficients.
- Dyko, A. L. 3775: A difference method for solving the problem of the propagation of light rays in a nonlinear medium.
- Dziambaev, R. T. 1122: (with Amerbaev, V. M.) A class of functions of the type of Ju. N. Rabotnov's special function.
- Džafarov, A. S. 461: Generalization of an inequality of R. Boas for entire functions of exponential type.
- Džanelidze, O. P. 748: Singular operators in the space  $H_p^{s_1, \dots, s_n}(E_n)$ .
- Dradjak, V. K. 1625: The approximation of analytic functions in regions with smooth and piecewise smooth boundary. 428: (with Alibekov, G. A.) Uniform approximation of functions of a complex variable on closed sets with corners. 4961: (with Panasovič, V. A.) Estimate of the remainder for certain cubature formulas.



- Dzjadyk, V. K. *See* Dajadik, V. K.
- Djordjevic, O. 5660: A certain sufficient test for the existence of a strong node for nonlinear integro-differential equations.
- Djrbaljan, M. M. 5343: An extension of the Denjoy-Carleman quasi-analytic classes. 583: (with Nersejan, A. B.) Fractional derivatives and the Cauchy problem for differential equations of fractional order.
- Eagleson, G. K. 6508: A duality relation for discrete orthogonal systems. 2348: (with Lancaster, H. O.) The regression system of sums with random elements in common.
- Eagon, J. A. 2738: Finitely generated domains over Jacobson semi-simple rings are Jacobson semi-simple.
- Eakin, Paul M., Jr. 1369: The converse to a well known theorem on Noetherian rings.
- Eames, W. P. 6137: ★The elementary theory of numbers, polynomials, and rational functions.
- Earl, J. P. 5390: Note on the construction of proximate orders.
- Earle, C. J. 412: (with Marden, A.) Projections to automorphic functions.
- Eastham, M. S. P. 624: On the limit points of the spectrum.
- Ebanoidze, T. A. 715: The solution of an infinite system of singular integral equations by the method of successive approximations.
- Eberhart, Carl. 2305: Tychonoff cubes are coset spaces.
- Ebin, David G. 6965: On the space of Riemannian metrics.
- Ecker, J. G. 1165: (with Peterson, Elmor L.) Geometric programming: A unified duality theory for quadratically constrained quadratic programs and  $l_p$ -constrained  $l_p$ -approximation problems.
- Eddy, T. W. 7058: (with Balch, H. T.; Dale, J. C. and Lauver, R. M.) Estimation of the mean of a stationary random process by periodic sampling.
- Edelen, Dominic G. B. 6506: Helmholtz equation on the surface of the unit  $(N+1)$ -sphere.
- Edelstein, M. 1954: On nearest points of sets in uniformly convex Banach spaces.
- Edmonds, A. R. *See* Kahan, Théo, #1127.
- Edmonds, Jack. 2632: Optimum branchings. 5114: Systems of distinct representatives and linear algebra.
- Edmunds, D. E. 5545: (with Dyer, R. H.) Lower bounds for solutions of the Navier-Stokes equations.
- Edwards, C. H., Jr. 2218: Unknotting polyhedral homology manifolds.
- Edwards, R. E. 4207: Differences of functions and measures. 6691: A class of multipliers.
- ver Eecke, Paul. *See* Ver Eecke, Paul.
- van Eeden, Constance. 3668: (with Kraft, Charles H.) ★A non-parametric introduction to statistics.
- Eells, James. 2267: (with McAlpin, John) An approximate Morse-Sard theorem.
- Efendiev, A. R. 5489: (with Balitinov, M. A.) The global asymptotic stability of a certain non-linear system.
- Effros, Edward G. 2895: (with Hahn, Frank) ★Locally compact transformation groups and  $C^*$ -algebras.
- Efimov, B. 3521: Absolutes of homogeneous spaces.
- Efimov, N. V. 5821: Differential homeomorphism tests of certain mappings with an application in surface theory.
- Egbert, Russell J. 2377: Products and quotients of probabilistic metric spaces.
- Eggert, D. 601: (with Varaiya, P.) Representation of a differential system. 6562: (with Varaiya, P.) Affine dynamical systems.
- Egorov, A. I. 1743: The maximum principle in the theory of optimal regulation. 2547: A certain optimal problem.
- Egorov, V. *See* Egorov, V. I.
- Egorov, V. I. 2194: (with Podstavkin, Ju.) A definition of dimension.
- Egorova, I. A. 7071: Lagrange's interpolation process.
- Egorova, M. I. 5649: The characteristic exponents of a system of integro-differential equations which is close to a linear system.
- Eguchi, Kazuo. 6882: On the imbedding of the space of Gödel type.
- Eguizábal, Alvaro Sainz. *See* Sainz Eguizábal, Alvaro.
- Ehresmann, Charles. 2830: Cohomologie à valeurs dans une catégorie dominée.
- Ehret, B. 7074: (with Nuding, E.) Berechnung von Funktionen von Matrizen.
- Ehrhart, E. 823: Un ovale à deux points isocordes? 5161: Deux corollaires de la loi de réciprocité du polyèdre rationnel.
- Eichler, M. 4016: Grenzkreisgruppen und kettenbruchartige Algorithmen. 4076: Dimension und Schnittpunktzahl von Divisoren in algebraischen Funktionenkörpern. 4077: Berichtigung zu: "Dimension und Schnittpunktzahl von Divisoren in algebraischen Funktionenkörpern". 4078: Berichtigung und Ergänzung zweier Arbeiten zur algebraischen Funktionentheorie.
- Ellenberg, Samuel. 1432: (with Kelly, G. Max) Closed categories.
- Einhorn, S. J. 1893: Functions positive definite in the space  $C$ .
- Eisen, Dennis. 3776: Consistency conditions for difference schemes with singular coefficients.
- Eisenfeld, J. 6520: Quadratic eigenvalue problems.
- Eke, V. R. 5387: On the real part of  $z f'(z)/f(z)$  for entire functions of small order.
- Elashoff, R. M. 1040: (with Affifi, A. A. and Langley, P. G.) An investigation into the small sample properties of a two sample test of Lehmann's.
- Eldridge, K. E. 6332: Orders for finite noncommutative rings with unity.
- Elfvig, G. 1017: Decision under uncertainty. 3695: A persistency problem connected with a point process.
- Eliasson, Halldor I. 2268: Geometry of manifolds of maps.
- Eliezer, C. J. 1541: (with Daykin, D. E.) Generalizations and applications of Cauchy-Schwarz inequalities.
- Eliopoulos, Hermes A. 851: Structures riemanniennes dégénérées sur les variétés  $r$ -tangentes.
- Ellentuck, Erik. 2597: The representation of cardinals in models of set theory.
- Ellers, Erich. 2677: Kommutative Inzidenzgruppen vom Exponenten  $n$ .
- Elliott, David. 3252: Truncation errors in Padé approximations to certain functions: An alternative approach. 6014: Error analysis of an algorithm for summing certain finite series. 3793: (with Warne, W. G.) An algorithm for the numerical solution of linear integral equations.
- Elliott, E. O. 5349: Measures on product spaces.
- Elliott, P. D. T. A. 175: On certain additive functions. II. 4000: Some notes on  $k$ -th power residues. 4031: Corrigendum: "A problem of Erdős concerning power residue sums".
- Ellis, A. J. 728: An intersection property for state spaces.
- Elmore, Merritt. 2673: Fibonacci functions.
- El'natanov, B. A. 5173: Asymptotic estimate of special arithmetic sums.
- Eloff, C. L. 6335: On the zeros of a fundamental system of solutions of the  $N$ th order linear differential equations.
- El-Sayyad, G. M. 3692: (with Lindley, D. V.) The Bayesian estimation of a linear functional relationship.
- El'agol'e, L. E. 4363: A note on branching and cut-off of solutions of equations with deviating argument.
- Embry, M. R. 780:  $n$ th roots of operators.
- Emersleben, Otto. 6623: Randwertprobleme der Potentialtheorie bei unendlich ausgedehnten unendlich vielfach zusammenhängenden Bereichen.
- Emery, Ashley F. 2477: An evaluation of several differencing methods for inviscid fluid flow problems.
- Enderton, H. B. 66: An infinitistic rule of proof.
- Endler, Otto. 6272: A note on henselian valuation rings.
- Endo, Shizuo. 1406: Completely faithful modules and quasi-Frobenius algebras. 2796: (with Watanabe, Yutaka) On separable algebras over a commutative ring.
- Enescu, I. 3983: Les algèbres d'ordre cinq, associatives, commutatives et à unité principale, à scalaires réels. I. Algèbres indécomposables. 3984: Les algèbres d'ordre cinq, associatives, commutatives et à unité principale, à scalaires réels. II. Algèbres décomposables. 6326: An extension of polynomial algebras with real scalars.
- Engeler, Erwin. 72: Algorithmic properties of structures.
- Engelking, R. 5836: ★Outline of general topology.
- Engibarjan, N. B. 3048: Domains of convergence of Laurent series in  $C^n$ .
- England, James W. 1517: (with Lanier, Lyle H., Jr.) Transformation groups of automorphisms of  $C(X)$ .

- Englefield, M. J. 5543: Solution of Schrödinger equation by Laplace transform.
- Ennola, Veikko. 162: On metric diophantine approximation.
- Enochs, Edgar. 199: Totally integrally closed rings. 245: A note on quasi-Frobenius rings.
- Entringer, R. C. 1865: Functions and inverses of asymptotic functions. 5138: Representation of  $m$  as  $\sum_{k=1}^m e_k k$ .
- Epimako, P. V. 193: The homomorphism of linear groups over rings of algebraic integers.
- Épikavili, G. P. 4529: Asymptotic behavior of the solution of the Cauchy problem for singular integro-differential equations with small parameters at the highest derivatives.
- Epstein, D. B. A. 5266: A group with zero homology. 3580: (with Shub, Michael) Expanding endomorphisms of flat manifolds.
- Epstein, David. See Epstein, D. B. A.
- Erdélyi, A. 4355: Two-variable expansions for singular perturbations. 6559: Approximate solutions of a nonlinear boundary value problem. See also Schwarz, Ralph J., #2401 and Bradley, Lee C.; Aggarwal, H. R.; Ablow, C. M.; Wood, Van E. and Glasser, M. L., #2398.
- Erdelyi, Ivan. 4577: Partial isometries closed under multiplication on Hilbert spaces.
- Érdős, P. See Erdős, P.
- Erdős, J. A. 5721: Operators of finite rank in nest algebras.
- Erdős, P. 2634: Some recent results on extremal problems in graph theory. Results. 2635: (with Hajnal, András) On chromatic graphs. 3956: (with Kleitman, Daniel J.) On coloring graphs to maximize the proportion of multicolored  $k$ -edges. 5144: (with Selfridge, J. L.) Some problems on the prime factors of consecutive integers. 2068: (with Straus, E. G.) Über eine geometrische Frage von Fejes-Tóth. 84: (with Hajnal, A. and Milner, E. C.) On sets of almost disjoint subsets of a set. 183: (with Sárközi, A. and Szemerédi, E.) On the solvability of certain equations in sequences of positive upper logarithmic density. 2716: (with Sárközi, András and Szemerédi, Endre) The solvability of certain equations in dense sequences of integers. 2717: (with Sárközi, A. and Szemerédi, E.) On the divisibility properties of sequences of integers. II.
- Eremin, I. I. 5031: Methods of Fejér approximations in convex programming.
- Eriksen, Erik. 7153: Properties of higher-order commutator products and the Baker-Hausdorff formula.
- Erohin, V. D. 3911: Best linear approximation of functions analytically continuable from a given continuum to a given region.
- Eršov, Ju. L. 19: (with Aleksandrov, P. S.; Kargapolov, M. I.; Kuz'min, E. N.; Smirnov, D. M.; Talmanov, A. D. and Širšov, A. I.) Anatolii Ivanovič Mal'cov: Obituary.
- Ertel, G. 6822: Une partition du groupe des homographies bilatères de la droite projective, dans une algèbre de quaternions généralisés.
- Eruhin, A. N. 3119: Certain analytic singularities in the solution of a differential equation in the case of a focus. 5475: The structure of the solution of differential equations with asymptotically periodic right-hand sides.
- Esajan, A. R. 4640: (with Srožiddinov, H. M.) A priori estimation of the nearness of the solutions of the precise and the approximate equation. 3373: (with Srožiddinov, H. M. and Stecenko, V. Ja.) Estimation of errors in approximate solution of linear equations in a space with a cone.
- Esary, J. D. 2393: (with Birnbaum, Z. W.) Some inequalities for reliability functions.
- Éskin, G. I. 3404: (with Višik, M. I.) Convolution equations of variable order.
- Esseen, C. G. 6974: On the concentration function of a sum of independent random variables.
- Esén, Mattis. 418: Entire functions of order less than one with regular behavior at infinity.
- Éterman, I. I. 3249: Approximation of functions in infinite intervals by asymptotic polynomials of the second type.
- Étienne, J. 3354: (with Matagne, R.) Sur le théorème de structure des fonctionnelles linéaires bornées dans l'espace  $\mathcal{S}$ .
- Euclid. See Busard, H. L. L., #1216 and Ogannisjan, V. A., #3891.
- Euler, Leonard. 1218: ★Leonhardi Euleri Commentationes Geometricae, Vol. III. 1219: ★Leonhardi Euleri Scientia Navalis. Pars prima. 6155: ★Leonhardi Euleri commentationes mechanicae ad theoriæ corporum rigidorum pertinentes. Volumen posterius. See also Fuss, P.-H., #1220; Maheu, Gilles, #6150 and Lettres de Bouguer à Euler, #6151.
- Eum, Sang-seup. 2148: On almost Hermitian hypersurfaces in almost contact metric spaces.
- Evans, J. W. 5445: General linear systems of first order differential equations.
- Everitt, W. N. 3996: Some positive definite differential operators.
- Eves, Howard W. 1560: ★Functions of a complex variable. Vols. I, II.
- Evgrafov, M. A. 1900: A certain integral transform and its application to the estimation of the number of eigenvalues of certain integral operators.
- Evseev, A. E. 328: The semilattice of finitely generated subsemigroups of a semigroup. 1502: Some classes of semigroups with ordinarily decomposable semilattices of subsemigroups. 1303: Semigroups containing three  $M$ -subsemigroups. 4184: Lattice isomorphisms of free nilpotent semigroups.
- Evain, V. I. 1810: Some boundary value problems for Darboux's equation.
- Ewell, John A. 81: On the determination of sets by sets of sums of fixed order.
- Eymard, Pierre. 4208: L'algèbre de Fourier d'un groupe localement compact.
- Ezello, J. O. C. 518: On the stability of the solutions of some third order differential equations.
- Ežov, Ľ. Ľ. 5922: (with Wang-an) Limit theorems for a class of random variables connected in a Markov chain.
- Ežova-Guseva, L. M. 2070: (with Zablockih, N. D. and Kasymova, S. S.) Dimensions of manifolds of planar generating Hermitian quadrics and null-planes of Hermitian null-systems in spaces over algebras.
- Fabian, Václav. 1038: On the choice of design in stochastic approximation methods. 6984: On asymptotic normality in stochastic approximation. 7017: ★Statistische Methoden. 5925: (with Dharmadhikari, S. W. and Jogdeo, K.) Bounds on the moments of martingales.
- Fabius, J. 3619: The Poisson estimate for the binomial distribution.
- Faddeev, D. K. 6017: (with Kublanovskaja, V. N. and Faddeeva, V. N.) Sur les systèmes linéaires algébriques de matrices rectangulaires et mal-conditionnées. See also Proceedings of the Steklov Institute of Mathematics. No. 80 (1965): Algebraic number theory and representations, #9.
- Faddeeva, V. N. 6017: (with Faddeev, D. K. and Kublanovskaja, V. N.) Sur les systèmes linéaires algébriques de matrices rectangulaires et mal-conditionnées.
- Fagin, Ronald. 5942: Representation theory for a class of denumerable Markov chains.
- Fahidy, T. Z. 6695: Note to the editor: On the inversion of Laplace transforms by the method of Papoulis.
- Fainleib, A. S. 4038: Some asymptotic formulas for sums of multiplicative functions and their applications. 5172: (with Levin, B. V.) The asymptotic behavior of sums of multiplicative functions. 5174: (with Levin, B. V.) Application of certain integral equations to questions of the theory of numbers.
- Fair, Wyman G. 6011: (with Luke, Yudell L.) Rational approximations to the generalized Duffing equation.
- Faith, Carl. 2791: ★Lectures on injective modules and quotient rings.
- Fajtlewicz, S. 2660: On the exchange of independent sets in abstract algebras. 127: (with Holaszyński, W.; Mycielski, J. and Węglarz, B.) On powers of bases in some compact algebras.
- Falb, Peter L. 2544: Infinite-dimensional filtering: The Kalman-Bucy filter in Hilbert space. 5696: (with Jacobs, Marc Q.) On differentials in locally convex spaces. 5044: (with Zames, G.) Stability conditions for systems with monotone and slope-restricted nonlinearities.
- Falikova, I. D. 4720: Certain nets on a surface  $V_2$  in Euclidean space  $E_3$ .
- Fan, Ky. 116: An inequality for subadditive functions on a distributive lattice, with application to determinantal inequalities. 231:

- Inequalities for the sum of two  $M$ -matrices. 3305: On infinite systems of linear inequalities.
- Fan Din' Zieu. See Phan Đình Diêu.
- Fan Dyk Tin'. 1554: (with Šilov, G. E.) ★Integral, measure and derivative on linear spaces.
- Fan Van Hap. 2482: Approximate solutions of linear singular integral equations.
- Farahat, H. K. 1384: Dependence of a matrix on its characteristic polynomial.
- Farrell, F. T. 274: (with Hsiang, W. C.) A geometric interpretation of the Künneth formula for algebraic  $K$ -theory.
- Farrell, R. H. 2365: Weak limits of sequences of Bayes procedures in estimation theory. 5944: Limit theorems for stopped random walks. III. 7037: On a necessary and sufficient condition for admissibility of estimators when strictly convex loss is used.
- Fateeva, G. M. 4419: Boundary value problems for quasilinear degenerate parabolic equations.
- Fattorini, H. O. 2050: On Jordan operators and rigidity of linear control systems. 7192: An observation on a paper of A. Friedman. 7193: A remark on the "bang-bang" principle for linear control systems in infinite-dimensional space.
- Fauré, Pierre. 7194: Sur les points conjugués en commande optimale.
- Fearnley, Lawrence. 887: Characterization of the continuous images of all pseudo-circles.
- Feautrier, Nicole. 6052: (with Feautrier, Paul and Vo Ky Lan) Sur la résolution numérique de certains systèmes d'équations intégrales différentielles de la mécanique quantique.
- Feautrier, Paul. 6052: (with Feautrier, Nicole and Vo Ky Lan) Sur la résolution numérique de certains systèmes d'équations intégrales différentielles de la mécanique quantique.
- Fedenko, A. S. 3480: (with Vodnev, V. T.) Symmetric partially projective spaces.
- Feder, Paul. 7042: (with Siegmund, David and Simons, Gordon) Existence of optimal stopping rules for rewards related to  $S_n/n$ .
- Federer, W. T. 2386: (with Banerjee, K. S.) On a special subset giving an irregular fractional replicate of a  $2^n$  factorial experiment.
- Fedida, Edmond. 6957: (with Pluvineau, François) Sur les structures feuilletées déterminées par les équations polynomiales.
- Fedorčuk, V. 5841:  $\delta$ -proximities and  $\delta$ -absolutes.
- Fedorenko, V. A. 6854: (with Kovancov, M. I.) Conformal mappings of a line complex.
- Fedorov, V. D. 1924: An analog of T. Ważewski's topological principle for integro-differential equations. 4544: On the theory of bilinear functionals in countably normed spaces. I, II. 4545: The concept of the order of bilinear functionals and linear operators in countably normed spaces. 5647: Investigation of a certain asymptotic problem for integro-differential equations by T. Ważewski's topological method. 5659: A generalization of a certain theorem of Ja. V. Bykov.
- Fedorova, V. P. 5842: Dual equivalents of ultracompleteness and paracompactness.
- Fedoruk, V. V. 4417: An expansion of the Green's function in terms of bifurcated fundamental solutions.
- Feferman, Solomon. 6170: Persistent and invariant formulas for outer extensions.
- Feichtinger, G. 2552: Der Quotientenautomat nach einem direkten Faktor einer Automorphismengruppe. 3878: Zur Theorie abstrakter stochastischer Automaten. 6133: Über die Anzahl aller nichtisomorphen transitiven Automaten von Primzahlordnung.
- Feinstein, Amiel. See Gelfand, I. M. and Šilov, G. E., #5093.
- Fel'dman, I. A. 1915: (with Gohberg, I. C.) ★Projection methods for solving Wiener-Hopf equations. 4658: (with Gohberg, I. C.) The indices of multiple extensions of matrix functions.
- Fel'dman, Ja. S. 2965: Certain extremal regions for systems of functionals of bounded schlicht functions.
- Feldman, Jacob. 965: A clarification concerning certain equivalence classes of Gaussian processes on an interval. 6395: (with Greenleaf, F. P.) Existence of Borel transversals in groups.
- Fel'dman, N. I. 4025: Estimation of a linear form in the logarithms of algebraic numbers. 4026: A linear form in the logarithms of algebraic numbers.
- Feller, William. 3604: ★An introduction to probability theory and its applications. Vol. I. 5575: On Müntz' theorem and completely monotone functions. 5586: Correction to: "A direct proof of Stirling's formula".
- Felsch, V. 3501: (with Neubüser, J.) Über ein Programm zur Berechnung der Automorphismengruppe einer endlichen Gruppe.
- Felscher, Walter. 5087: On criteria of definability.
- Fempl, Stanimir. 808: Über eine dem schiefen Kreiskegel zugeordnete Kugelfläche. 4274: Areoläre Exponentialfunktion als Lösung einer Klasse Differentialgleichungen.
- Fenstad, J. E. 1234: Representations of probabilities defined on first order languages.
- Fen'vš, F. See Fenýves, F.
- Fenýves, F. 5317: The Schreier extension of quasigroups.
- Ferguson, Thomas S. 2391: On characterizing distributions by properties of order statistics.
- de Fériet, Joseph Kampé. See Kampé de Fériet, Joseph.
- Ferreira, Jaime Campos. See Campos Ferreira, Jaime.
- Ferrero, Giovanni. 4129: Due generalizzazioni del concetto di anello e loro equivalenza nell'ambito degli "stems" finiti. 4130: Struttura degli "stems"  $p$ -singolari.
- Ferrier, Jean. 2174: Paracompacité et espaces uniformes.
- Fertman, B. S. 3861: (with Gureckij, V. V.) A problem of optimum control.
- Fešenko, S. F. 487: (with Nikolenko, L. D.) On the asymptotic decomposition of a system of linear differential equations and some applications to the theory of vibrations of mechanical systems.
- Fetisov, V. G. 4595: On the question of the boundedness of non-isotropic singular integrals in Orlicz spaces. 3297: (with Povolockij, A. I.) A weakly connected system of singular integral equations.
- Fettis, Henry E. 1658: Generalization of a Bessel function integral. 2399: (with Hanson, Ira C.; Wood, Van E. and Glasser, M. L.) Table errata.
- Few, L. 4023: Double covering with spheres.
- Fiacco, Anthony V. 3417: Second order sufficient conditions for weak and strict constrained minima.
- Fiechet, J. 6113: Sur l'existence de points de selle dans les jeux différentiels linéaires de durée fixée.
- Fichera, Gaetano. 4603: Il calcolo degli autovalori.
- Fichtner, K. 6229: On the theory of universal algebras with ideals.
- Fiedler, Heinz. 1564: On the modulus of power series with totally monotone coefficients.
- Fiedler, M. 6018: Metric problems in the space of matrices.
- Fiedler, Daniel C. 2674: Certain Lucas-like sequences and their generation by partitions of numbers. 3993: Remarks on two related sequences of numbers.
- Fields, Jerry L. 479: Confluent expansions. 6302: Uniform expansions for generalized Jacobi functions.
- Fife, Paul C. 3217: Considerations regarding the mathematical basis for Prandtl's boundary layer theory. 5544: (with Berger, Melvyn S.) Von Kármán's equations and the buckling of a thin elastic plate. II. Plate with general edge conditions.
- Figà-Talamanca, Alessandro. 1776: Una maggioranza a priori per equazioni ellittiche in due variabili. 1893: Appartenenza a  $L^p$  delle serie di Fourier aleatorie su gruppi non commutativi. 1896: Un'osservazione sulle serie di Fourier lacunari per gruppi non commutativi. 6408: Un'osservazione sulle serie di Fourier lacunari per gruppi non commutativi.
- Figiel, T. 6734: On nonlinear isometric embeddings of normed linear spaces.
- Fichtner, K. See Fichtner, K.
- Filimonov, Iu. M. See Filimonov, Ju. M.
- Filimonov, Ju. M. 6117: (with Bondarenko, V. I. and Krasovskij, N. N.) On the problem of bringing a linear system to its equilibrium position.
- Filmonova, I. I. 2984: The Beltrami equation on a closed Riemann surface.
- Filippov, A. F. 5476: Dissipativity and periodic solutions of second order nonsymmetric systems.
- Filippov, V. V. 3519: Feathery paracompacta.
- Filippovič, E. I. 5026: (with Kozlov, O. M.) The number of steps in the solution of linear programming problems by the simplex method.



- Filotti, Ion. 5064: Direct proofs for some theorems concerning finite state languages.
- Fine, Arthur I. 2609: Covering theorems and the axiom of choice.
- Fink, A. M. 5470: An extension of Polya's theorem.
- Finkel, L. A. 1925: Properties of the solutions of a certain class of integro-differential equations. 4530: Construction of a particular solution of a certain class of inhomogeneous linear integro-differential equations. 5653: The Cauchy problem for a certain class of linear integro-differential equations with infinite interval of integration. 5655: The Cauchy problem for A. I. Nekrasov's integro-differential equation with infinite interval of integration.
- Finkelstein, Mark. 393: On the relation between measures and convex analytic functions.
- Finlayson, Henry C. 1551: Vladimirov-type approximation of Wiener integrals of suitably dominated functionals.
- Finogenova, V. G. 2977: (with Kas'janjuk, S. A.) The ranges of values of typically real functions with fixed coefficients and their coefficient regions.
- Finster, Paul. 6190: Totalendliche Mengen.
- Fireacu, D. 2539: (with Tăutu, P.) A simple stochastic model of growth of populations heterogeneous by marker characters.
- Firey, William J. 5922: Christoffel's problem for general convex bodies.
- Fischer, Bernd. 4161: (with Carter, Roger and Hawkes, Trevor) Extreme classes of finite soluble groups.
- Fischer, H. R. 5837: (with Cook, C. H.) Regular convergence spaces.
- Fischer, Klaus. 6134: (with Lindner, Rolf and Thiele, Helmut) Stabile stochastische Automaten.
- Fischer, Wolfgang. 5333: (with Grauert, Hans) ★Differential- und Integralrechnung. Band II: Differentialrechnung in mehreren Veränderlichen, Differentialgleichungen.
- Fisher, Franklin M. 1007: Approximate specification and the choice of a  $k$ -class estimator.
- Fisher, George M. C. 5002: (with Leitman, Marshall J.) On continuum thermodynamics with surfaces.
- Fisher, Lloyd. 4906: (with Ross, Sheldon M.) An example in denumerable decision processes.
- Fisher, Stephen D. 1620: Rational functions  $H^\infty$  and  $H^p$  on infinitely connected domains.
- Fliz, Marek. 2343: Theory of probability and mathematical statistics.
- Fitch, James. 3750: (with Asakey, Richard) Positivity of the Cotes numbers for some ultraspherical abscissas. 6602: (with Asakey, Richard and Gasper, George) On a positive trigonometric sum.
- Flaherty, F. 862: Spherical submanifolds of pinched manifolds. 2140: Spheres and cells in negatively curved spaces.
- Flaßer, N. M. 6617: A new type of problems for the heat equation.
- Flamand, G. 3921: Mathematical theory of non-relativistic two- and three-particle systems with point interactions.
- Flato, M. 2499: (with Sternheimer, D.) Local representations and mass spectrum. 6077: (with Sternheimer, Daniel) Remarques sur les automorphismes causaux de l'espace-temps.
- Flatto, Leopold. 1483: Basic sets of invariants for finite reflection groups.
- Fleckner, Oscar L. 2411: A method for the computation of the Fresnel integrals and related functions.
- Fleischer, I. 128: On Cohn's theorem. 3508: Iterated families. 4215: Infinitesimals. 5254: A new construction of the injective hull.
- Flett, T. M. 5373: Mean values of power series.
- Flomin, A. M. 1867: Approximation in locally convex topological spaces. 3250: A certain generalization of the Stone-Weierstrass theorem.
- Floret, Klaus. 1945: (with Wloka, Joseph) ★Einführung in die Theorie der lokalkonvexen Räume.
- de Floriani, Walter. See De Floriani, Walter.
- Flusser, P. 5443: (with Spencer, L. V.) Properties of a useful biorthogonal system.
- Fodor, Géza. 3929: (with Máté, Attila) Disjoint systems over set ideals (on a generalization of the usual conception of almost disjoint set systems).
- Fogels, E. 4033: Corrigendum: "On the zeros of  $L$ -functions".
- Foglio, Susana. 3353: The  $N$ -variational integral and the Schwartz distributions.
- Foguel, S. R. 977: Convex combinations of Markov transition functions.
- Foht, A. S. 4390: A lemma from the calculus of variations and its application to embedding theorems.
- Foias, C. 1549: (with Dinculeanu, N.) Algebraic models for measures. 4644: (with Katok, A. B.) Multiplicative operator functions of a metric automorphism. 778: (with Sz.-Nagy, Béla) ★Analyse harmonique des opérateurs de l'espace de Hilbert.
- Folkman, Jon. 97: Regular line-symmetric graphs. 1180: (with Breuer, Melvin A.) An unexpected result in coding the vertices of a graph.
- Fomenko, V. T. 5788: Infinitesimal bendings of convex surfaces with a generalized sliding condition at the boundary.
- Fomin, A. N. 5319: (with Vasil'ev, Ju. P.) On the problem of representability of the elements of a set.
- Fomin, S. V. 4221: Differentiable measures in linear spaces.
- Fomin, V. N. 1717: The dynamic instability of linear systems with almost periodic coefficients.
- Fontana, Francesco Maria. 5779: Le funzioni di Pierce che danno luogo a piani di André.
- Fontana, Ferruccio. 1846: Problemi di convergenza nell'interpolazione di tipo misto Lagrange-Hermite.
- Forstner, K. 1156: On arrival processes, which are homogeneous in time and have stochastically independent increments.
- Fort, Jacques. 1400: Sommes directes de sous-modules co-irréductibles d'un module.
- Forte, Bruno. 2940: L'ergodicité en termini di indipendenza stocastica e di informazione. 4232: (with Ariotti, L.) The classical ergodic problem and the restricted one: A general solution. 1191: (with Kampé de Fériet, Joseph) Information et probabilité. 7209: (with Pintacuda, Nicolò) Information fournie par une expérience.
- Fosdick, Lloyd D. 1078: A special case of the Filon quadrature formula.
- Fossum, Robert. 200: (with Claborn, Luther) Generalizations of the notion of class group.
- Foulser, David A. 3436: A generalization of André's systems. 3437: A class of translation planes,  $\Pi(Q_8)$ .
- Fox, Geoffrey. 1552: Extension of a bounded vector measure with values in a reflexive Banach space.
- Fox, L. 3733: (with Parker, I. B.) ★Chebyshev polynomials in numerical analysis.
- Frackiewicz, H. 2118: Geometry of a discrete set of points. 2119: Deformation of a discrete set of points. 4721: The geometry of a discrete set of points on a surface.
- Frassé, Roland. 3902: ★Cours de logique mathématique. Tome I: Relation, formule logique, compacité, complétude.
- Frleigh, John B. 1212: ★A first course in abstract algebra.
- France, M. Mendès. See Mendès France, M.
- Franchetti, Carlo. 1857: Sull'approssimazione di funzioni con derivata prima continua mediante una classe di operatori lineari positivi del tipo di Bernstein. 1858: Sull'approssimazione di funzioni più volte derivabili con successioni di operatori lineari, positivi.
- Frank, Charles, R., Jr. 2524: Parameter programming in integers.
- Frank, David. 4827: (with Thomas, Emery) A generalization of the Steenrod-Whitehead vector field theorem.
- Frank, L. S. 973: (with Klimov, G. P.) The structure of a stationary flow with a bounded aftereffect.
- Frank, Ove. 6975: Generalization of an inequality of Hájek and Rényi.
- Frank, Stanley. 2754: (with Hutcherson, W. R.) Two points on a certain quartic surface are both perfect and imperfect.
- Franken, Peter. 7015: (with Richter, Gerhard) Über eine Klasse von zufälligen Punktfolgen.
- Franz, Wolfgang. 6921: ★Algebraic topology.
- Fraser, D. A. S. 1023: The conditional Wishart: Normal and non-normal. 5959: Sufficiency or conditional sufficiency.
- Fray, Robert. 1305: Generating functions for ordinary and  $q$ -binomial coefficients. 3935: A generating function associated with the generalized Stirling numbers.
- Freedman, David A. 5943: On the derivative of a semigroup.
- Freedman, H. 1471: On endomorphisms of primary Abelian groups.
- Freese, Raymond W. 3452: Criteria for inner product spaces.
- Frei, Armin. 6342: (with Mac Donald, John L.) Coalgebres dans les catégories d'algèbres et structures induites par un triple.
- Freidkin, S. A. 2038: A certain isometric transformation by means of a singular operator.

- Freidlin, M. I. 584: Quasilinear parabolic equations, and measures on a function space. 3208: A certain class of degenerate quasilinear equations. 5243: The factorization of nonnegative definite matrices. 5322: The global existence of smooth solutions for degenerate quasilinear equations.
- Freiman, G. A. 2695: Non-coincidence of the spectra of Markov and of Lagrange.
- Freitag, Eberhard. 1652: Fortsetzung von automorphen Funktionen.
- Freitag, Herta T. 134: A magic square involving Fibonacci numbers.
- Fremlin, D. H. 749: Stable subspaces of  $L^1 + L^\infty$ .
- Fresnel, Jean. 169: Nombres de Bernoulli et fonctions  $L$   $p$ -adiques.
- Freud, Géza. 4466: Approximation with interpolation polynomials.
- Freyd, Peter. 2875: Redei's finiteness theorem for commutative semi-groups.
- Fridman, B. L. 663: An improvement in the smoothness of the functions in A. N. Kolmogorov's theorem on superpositions.
- Fridman, G. A. 6460: The connection between the growth of the maximum of the modulus of an entire function and the growth of the maximum of the modulus of its generalized Borel transform.
- Friedlander, F. G. 621: On an improperly posed characteristic initial value problem. 1898: On the radiation field of pulse solutions of the wave equation. III. 4412: (with Heins, A. E.) On a singular boundary value problem for the Euler-Darboux equation.
- Friedman, Avner. 1754: Singular perturbations for partial differential equations. 3209: The Stefan problem in several space variables. 3310: One dimensional Stefan problems with nonmonotone free boundary.
- Friedman, Marcelle. 5477: Quasi-periodic solutions of nonlinear ordinary differential equations with small damping.
- Friedman, Morris D. See Gel'fand, I. M. and Šilov, G. E., #5693.
- Friedman, N. A. 5839: (with Metzler, R. C.) On stable topologies. 363: (with Katz, M. and Koopmans, L. H.) On weak convergence of measures on  $[0, 1]$ .
- Friedrichs, K. O. 483: ★Lectures on advanced ordinary differential equations.
- Friessen, Donald K. 320: Finite rotation groups in low dimensions.
- Frischhler, Reinhard. 1640: Randwertprobleme der inhomogenen Bi- und Potentialgleichungen mit unstetigen Störfunktionen. III.
- Fristedt, Bert. 2319: An extension of a theorem of S. J. Taylor concerning the multiple points of the symmetric stable process.
- Frjazinov, I. V. 2478: Efficient symmetrized solution schemes of boundary value problems for a multidimensional equation of parabolic type.
- Frolík, Z. 79: A note on  $C(P)$  and Baire sets in compact and metrizable spaces.
- Frolov, G. D. 2486: (with Krivickii, N. A. and Mironov, G. A.) ★Programming.
- Fušík, Svatopluk. 6804: Fixed point theorems based on Leray-Schauder degree.
- Fuhrken, Gebhard. 5088: A model with exactly one undefinable element.
- Fujimoto, Atsuo. 3470: The theory of  $G$ -structures.
- Fujiwara, Daisuke. 4836: On an analytic index-formula for elliptic operators.
- Fuka, Jaroslav. 3012: The results of Soviet mathematicians in the theory of uniform approximations in the complex domain.
- Fuka, D. B. 934: The Maslov-Arnol'd characteristic classes. 2252a: (with Gel'fand, I. M.) Cohomology of Lie groups with real coefficients. 2252b: (with Gel'fand, I. M.) Topological invariants of noncompact Lie groups connected with infinite dimensional representations. 2253: (with Gel'fand, I. M.) The topology of noncompact Lie groups.
- Fukuda, Takuo. 6947: Errata to: "Imbeddings of Dold manifolds".
- Fukushima, Masatoshi. 6999: A construction of reflecting barrier Brownian motions for bounded domains.
- Fukuyama, Masaru. 2605: A note on incomparable degrees. 6183: A remark on minimal degrees.
- Fuller, A. T. 4097: Conditions for a matrix to have only characteristic roots with negative real parts.
- Fuller, Kent R. 2810: The structure of QF-3 rings.
- Fuller, R. V. 3536: Relations among continuous and various non-continuous functions.
- Funakoshi, Shunsuke. 3306: On nuclear spaces with fundamental system of bounded sets. I. 4612: On criterion for the nuclearity of space  $S(M_p)$ .
- Furukawa, Nagata. 1159: A Bayes controlled process. 2518: A Markov decision process with discounted rewards.
- Furuta, Takayuki. 5720: Relations between unitary  $p$ -dilations and two norms.
- Furuya, Mamoru. 214: (with Kawahara, Yusaku and Kimura, Tetsuzo) On ground field extensions of function fields.
- Furuya, Shigeru. 512: A nonlinear differential equation.
- Fuss, Nicolas. See Fuss, P.-H., #1220.
- Fuss, P.-H. 1220: ★Correspondance mathématique et physique de quelques célèbres géomètres du XVIIIème siècle. Tomes I, II.
- Gabasov, R. 3860: The optimality of singular controls. 6123: On the optimization of a certain class of dynamical systems. 802: (with Čurakova, S. V.) On necessary conditions for optimality in systems with lag. 3865: (with Kirillova, F. M.) A statistical problem on the optimal control of the terminal state of a linear system. 3866: (with Kirillova, F. M.) The maximum principle for L. S. Pontrjagin's extremals. 6816: (with Naumova, S. I.) On sufficient optimality conditions in dynamical systems.
- Gabduhaev, B. G. 2440: A certain general quadrature process and its application to the approximate solution of singular integral equations. 3754: Quadrature formulas for singular integrals and some of their applications. 4982: A note on the general theory of approximate methods in analysis. 4983: Approximate solution of singular integral equations by the method of mechanical quadratures.
- Gabovič, E. Ja. 2649: Ordered periodic semigroups.
- Gabriel, J. R. 1659: The calculation of cubic harmonics. 6383: New methods for reduction of group representations. II.
- Gabriel, P. 1377: Généralités sur les groupes algébriques. 1439: (with Oberst, Ulrich) Spektralkategorien und reguläre Ringe im von Neumannschen Sinn. 243: (with Rentschler, Rudolf) Sur la dimension des anneaux et ensembles ordonnés.
- Gabriel, Peter. See Gabriel, P.
- Gabriel, Pierre. See Gabriel, P.
- Gafurov, M. N. 6823: The possibility of constructing a pair of parallel lines by means of a straightedge and a standard of length in the Lobachevskii plane.
- Gaggioli, R. A. 564: (with Moran, M. J.) Reduction of the number of variables in systems of partial differential equations, with auxiliary conditions.
- Gagliardo, E. 1951: (with Aronszajn, N.) Interpolation spaces and interpolation methods.
- Gähler, Siegfried. 6443: (with Gähler, Werner) Contributions à une théorie générale des surfaces.
- Gähler, Werner. 6443: (with Gähler, Siegfried) Contributions à une théorie générale des surfaces.
- Gaiduk, S. I. 4992: An application of the method of the contour integral to the solution of a certain problem on transverse vibrations of a composite visco-elastic rod.
- Gaiduk, V. N. 4247: (with Avhadiev, F. G.) An application of close-to-convex functions to inverse boundary value problems.
- Gaines, Fergus J. 4098: (with Thompson, R. C.) Sets of nearly triangular matrices.
- Gaines, Robert. 1688: (with Bebernes, J. W.) A generalized two-point boundary value problem. 4317: (with Bebernes, J. W.) Dependence on boundary data and a generalized boundary-value problem.
- Gajewski, Herbert. 3407: Über die Linearisierung der Ritzschen Methode bei Anwendung auf nichtlineare Gleichungen. 6065: Ein konstruktiver Existenz- und Einzigkeitsnachweis der Lösung des elastisch-plastischen Torsionsproblems für prismatische Stäbe.
- Gajubev, G. N. 2141: Some questions on the theory of surfaces in hyperbolic space.
- Galajda, P. See Galajda, P.
- Galajda, P. 6055: (with Vil'ner, I. A.) Foundations of anallagmatic nomography.
- Galambos, J. 4039: On the distribution of prime-independent additive number-theoretical functions.
- Galburk, Gh. 242: (with Ion, Ion D.) On the localization of prime decompositions in the subcommutative case.

- Gale, David. 2624: Optimal assignments in an ordered set: An application of matroid theory. 5782: (with Klee, Victor and Rockafellar, R. T.) Convex functions on convex polytopes.
- Gale, Gene B. 1392: Factorization of  $2 \times 2$  integral matrices with determinant  $\pm 1$ .
- Galindo, A. 338: Lie algebra extensions of the Poincaré algebra. 6078: Proofs of O'Riartaigh's theorem.
- Gallavotti, G. 1144: (with Miracle-Sole, S.) Correlation functions of a lattice system.
- Gallo, V. F. 2953: (with Suvorov, G. D.) Monogeneity sets of differentiable plane ring mappings.
- Galočkin, A. I. 5156: Estimate of the mutual transcendence measure of the values of  $E$ -functions.
- Gal'pern, S. A. 585: (with Kondrašov, V. E.) The Cauchy problem for differential operators which decompose into wave factors.
- Galvão, M. L. Noronha. See Noronha Galvão, M. L.
- Gamelin, T. 1982: (with Lumer, G.) Theory of abstract Hardy spaces and the universal Hardy class. 3023: (with Voichick, M.) Extreme points in spaces of analytic functions.
- Gamidov, Š. G. 5465: Qualitative investigation of inhomogeneous boundary value problems of de la Vallée-Poussin type.
- Gamkrelidze, N. G. 3631: A certain lower estimate for the speed of convergence in the local theorem.
- Gamlen, J. L. B. 3365: (with Miller, J. B.) Averaging and Reynolds operators on Banach algebras. II. Spectral properties of averaging operators.
- Gancarzewicz, Jacek. 1298: On commutative algebraic objects over a groupoid.
- Gandhi, J. M. 2613: (with Chinthayamma) On numbers generated by  $e^{(x^2-1)}$ .
- Gandy, R. O. 1246: (with Sacks, G. E.) A minimal hyperdegree.
- Ganea, T. 4813: On the homotopy suspension. 4814: Lusternik-Schnirelmann category and strong category. 5870: Sur quelques invariants numériques du type d'homotopie.
- Gantmacher, F. R. See Gantmaher, F. R.
- Gantmaher, F. R. 1381a: ★Théorie des matrices. Tome 1: Théorie générale. 1381b: ★Théorie des matrices. Tome 2: Questions spéciales et applications.
- Gapolkin, V. F. 637: Certain systems of almost independent functions. 4596: Unconditional bases in Orlicz spaces.
- Garabedian, P. R. 1583: An extension of Grunsky's inequalities bearing on the Bieberbach conjecture. 1594: (with Schiffer, M.) The local maximum theorem for the coefficients of univalent functions.
- Gardiner, Fred. 411: An analysis of the group operation in universal Teichmüller space.
- Garland, H. 4084: (with Hsiang, W. C.) A square integrability criterion for the cohomology of arithmetic groups.
- Garling, D. J. H. 5670: Symmetric bases of locally convex spaces.
- Garner, Cyril W. L. 821: Regular skew polyhedra in hyperbolic three-space.
- Garnier, René. 488: Contribution à l'étude des solutions de l'équation (V) de Painlevé. 5449: Contribution à l'étude des solutions de l'équation V de Painlevé. 5450: Contribution à l'étude des solutions de l'équation (V) de Painlevé.
- Garoutte, Dennis E. 404: (with Nickel, Paul A.) A note on extremal properties characterizing weakly  $\lambda$ -valent principal functions.
- Garside, G. R. 1072: (with Jarratt, P. and Mack, C.) A new method for solving polynomial equations.
- Garsoux, J. 1531: ★Analyse mathématique.
- Gasanov, K. K. 2060: (with Ahmedov, K. T.) A calculus of variations problem for an ordinary differential equation involving restraints.
- Gasilov, V. L. 1120: A method for the approximate realization of a motion along a given trajectory.
- Gasparini, Angiola. 3784: (with Comincioli, Valeriano) Approssimazione mediante uno schema alle differenze finite delle soluzioni periodiche dell'equazione delle onde con termine dissipativo non lineare.
- Gasper, George. 6662: (with Askey, Richard and Fitch, James) On a positive trigonometric sum.
- Gastinel, N. 7073: Conditionnement des problèmes d'approximation (aux moindres carrés), et des problèmes de lissage.
- Gastwirth, Joseph L. 1641: (with Bloch, Daniel A.) On a simple estimate of the reciprocal of the density function.
- Gasymov, M. G. 5550: Expansion in terms of the solutions of a scattering theory problem for the nonselfadjoint Schrödinger equation.
- Gatesoupe, Michel. 3277: Sur un théorème de R. Salem. 5616: Sur les transformations de Hankel et de Fourier.
- Gauthier, Paul. 6449: A criterion for normalcy.
- Gautschi, Walter. 3755: Construction of Gauss-Christoffel quadrature formulas.
- Gavrilov, G. P. 5085: On functional completeness in countably-valued logic.
- Gavrilov, V. I. 420: Functions meromorphic and holomorphic in the unit circle with preassigned growth of the spherical derivative in angles.
- Gavurin, M. K. 3537: The method of A. N. Tikhonov for solving ill-posed problems.
- Gay, Roger. 5419: (with Avanissian, Vazguen) Sur les fonctions entières de plusieurs variables.
- Gear, C. W. 1057: The numerical integration of ordinary differential equations.
- Geary, R. C. 7062: The average critical value method for adjudging relative efficiency of statistical tests in time series regression analysis.
- Gečeg, F. See Gécseg, F.
- Gečauskas, E. 5906: The distribution function of the length of a chord of an oval and an ovaloid and its connection with the distribution of distance inside an oval and an ovaloid.
- Gécseg, F. 5058: On multi-step automata.
- Gegella, T. G. 1914: On a certain property of solutions of singular integral equations.
- Gehtman, M. M. 3380: On the question of localization of the spectrum of certain nonselfadjoint operators.
- Geiman, H. M. 6613: The analyticity in a parameter of the phase boundary in the problem of the crystallization of a melt by the immersion of a plate in it.
- Gelbaum, Bernard R. See Zuhovickii, S. I. and Avdeeva, L. I., #2522.
- Gel'fand, I. M. 2252a: (with Fuks, D. B.) Cohomology of Lie groups with real coefficients. 2252b: (with Fuks, D. B.) Topological invariants of noncompact Lie groups connected with infinite dimensional representations. 2253: (with Fuks, D. B.) The topology of non-compact Lie groups. 3814: (with Graev, M. I.) Irreducible representations of the Lie algebra of the group  $U(p, q)$ : Description of the discrete series of representations. 4704: (with Graev, M. I.) Complexes of  $k$ -dimensional planes in the space  $C^n$  and Plancherel's formula for the group  $GL(n, C)$ . 5260: (with Kirillov, A. A.) The structure of the quotient field of the enveloping algebra of a semi-simple Lie algebra. 5325: (with Ponomarev, V. A.) Indecomposable representations of the Lorentz group. 5693: (with Silov, G. E.) ★Generalized functions. Vol. 2. Spaces of fundamental and generalized functions.
- Gel'fer, S. A. 413: A variational method in the theory of analytic functions which admit a parametric representation.
- Gelfond, Alexandre. 414: Sur quelques questions concernant les fonctions entières à valeurs entières. 4002: ★The solution of equations in integers (Diophantine equations).
- Gelig, A. H. 1178: On the stability of nonlinear control systems with infinite number of degrees of freedom.
- Gelig, A. Kh. See Gelig, A. H.
- Geller, E. 6058: (with Müller, P. F.) Über die Herstellung von Höhenkarten und perspektivischen Reliefdarstellungen von Funktionen einer komplexen Veränderlichen mittels elektronischer Rechanlagen.
- Gel'man, A. E. 4436: Properties of bounded solutions of differential equations in  $B$ -spaces.
- Gemignani, Giuseppe. 4087: Iperalgebra e gruppi analitici commutativi.
- Gemignani, M. C. 5758: On the continuity of projections.
- Geminert, V. I. 253: Semiprimary rings with atomic structure of left ideals.
- Genčev, Todor. 1785: The Cauchy problem for a class of quasilinear equations with a nonnegative characteristic form.
- Genin, Robert. 6701: (with Calvez, Léon-Claude) Sur quelques propriétés de la transformation de Laguerre.
- Geoffrion, Arthur M. 5027: Proper efficiency and the theory of vector maximization.
- George, Claude. 6401: Sur quelques propriétés classiques des groupes de Lie.



- George, J. H. 3127: (with Gunderson, R. W.) On the equivalence of certain stability properties.
- George, K. 3591: (with Arraut, J. L.)  $V$  vector fields over certain spheres.
- Geraĭenko, S. M. 5508: Differential descent and Ljapunov functions.
- Gerhardt, Max Dieter. 4180: Termgleichungen in glatt-idempotenten Halbgruppen. 5125: Ein unsymmetrisches Kommutativgesetz in der Verbandstheorie.
- Gerike, Helmuth. 2566: Wilhelm Süss, der Gründer des Mathematischen Forschungsinstitutes Oberwolfach.
- Gerl, Peter. 6250: Einige mehrdimensionale Sätze zur gleichmäßigen Gleichverteilung mod 1.
- Gerlak, G. See Guerlac, H.
- Germain, P. See Solomon, Liviu, #7120.
- Geroch, Robert. 3833: Local characterization of singularities in general relativity.
- Gerritzen, L. 4291: Die Norm der gleichmäßigen Konvergenz auf reduzierten affinoiden Algebren. 5428: On one-dimensional affinoid domains and open immersions.
- Gerstein, V. M. 1168: (with Kac, B. P., Levin, A. Ju., and Mitjagin, B. S.) The solution of a game on graphs.
- Gersten, S. M. 254: On class groups of free products.
- Gerstenhaber, Murray. 4145: The obstruction to an automorphism of a filtered ring.
- Gessaman, M. P. 3694: (with Quesenberry, C. P.) Nonparametric discrimination using tolerance regions.
- Getoor, R. G. See Getoor, R. K.
- Getoor, R. K. 5935: (with Blumenthal, R. M.) Hunt processes and stand processes. See also Stochastic differential equations, #7011.
- Geyer, Wulf-Dieter. 5224: Ein algebraischer Beweis des Satzes von Weichold über reelle algebraische Funktionenkörper.
- Geymonat, Giuseppe. 752: Osservazioni su un teorema di prolungamento di R. T. Seeley. 4591: Proprietà di alcuni spazi di funzioni indefinitamente derivabili a valori vettoriali. 6603: (with Grisvard, Pierre) Problemi ai limiti lineari ellittici negli spazi di Sobolev con peso.
- Gheorghiev, Gh. 942: Sur les distributions structurales d'un pseudo-groupe Lie. 0852: Sur les prolongements réguliers des espaces fibrés et les groupes de Lie associés. 868: (with Popa, I.) Espaces à deux métriques données.
- Gheorghiu, Gh. Th. 3456: The surfaces and curves of Țițeica. 4732: Sur un calcul tensoriel mixte.
- Gheorghiu, Octavian. 6631: (with Cratici, Borislav) Quelques considérations sur certaines équations fonctionnelles du troisième ordre.
- Gherardelli, Francesco. 2752: Un'osservazione sulla varietà cubica di  $P^4$ . 4839: Progressi recenti nella teoria delle varietà differenziabili di dimensione infinita.
- Ghermanov, M. 7173: Une méthode pour la résolution des programmes non-linéaires.
- Ghezzi, S. Baldassarri. See Baldassarri Ghezzi, S.
- Ghika, Alexandru. 5076: ★Mathematical works. See also Andreian Cazacu, Cabria and Cristescu, Romulus, #5075.
- Ghiroilașu, N. 633: (with Stamate, I.) Functional equations which define trigonometric functions. 1826: (with Stamate, I.) A generalization of an equation of D. Pompeiu. 5561: (with Stamate, I.) A problem relative to the second formula of the mean.
- Ghizzetti, Aldo. 4499: (with Ossicini, Alessandro) Su un nuovo tipo di sviluppo di una funzione in serie di polinomi.
- Ghosal, A. 5956: Some remarks about the duality relation in queues.
- Gião, António. 4424: On the wave continuation of functions.
- Giblin, P. J. 2245: Circle bundles over a complex quadric.
- Gibson, J. K. 1631: (with Szekeres, G.) Analytic matrix functions.
- Gibson, P. M. 5234: An inequality between the permanent and the determinant.
- Giddens, Don P. 3756: (with Huang, A. Ben) A new table for a modified (half-range) Gauss-Hermite quadrature with an evaluation of the integral  $\int_0^\infty e^{-u^2} (x+u) du$ .
- Gierst, Magnus. 2020: On generalized elements with respect to linear operators.
- Gihman, I. I. See Daniljuk, I. I.; Koroljuk, V. S.; Mitropol'skii, Ju. O.; Skorohod, A. V. and Jadrenko, M. I., #5078.
- Gilbert, Richard C. 490: An asymptotic phase for a Sturm-Liouville operator with unbounded potential.
- Gilbert, R. P. 6576: (with Avila, G. S. S.) On the analytic properties of solutions of the equation  $\Delta u + x u_x + y u_y + c(r)u = 0$ .
- Gilbert, W. J. 6930: Some examples for weak category and conilpotency.
- Gil'derman, Ju. I. 1550: Certain properties of additive set functions.
- Gili, Adolfo. 7021: Sulla correlazione lineare multipla.
- Gillespie, T. A. 6787: An invariant subspace theorem of J. Feldman.
- Gilmer, Robert. 2740: On a condition of J. Ohm for integral domains. 5196: ★Multiplicative ideal theory. 5207:  $R$ -automorphisms of  $R[X]$ . 6273: Domains in which valuation ideals are prime powers. 2741: (with Arnold, Jimmy T.) Idempotent ideals and unions of nets of Prüfer domains. 204: (with Butts, H. S.) Primary ideals and prime power ideals. 1358: (with Heinzer, William) Irredundant intersections of valuation rings. 1357: (with Mott, J. L.) On proper overrings of integral domains.
- Gilmore, P. C. 3910: Attributes, sets, partial sets and identity.
- Gilormini, Claude. 5579: Sur un contre-exemple de M. Henry L. Loeb.
- Gindikin, S. G. 3177: The Cauchy problem for strongly homogeneous differential operators. 3176: (with Vainberg, B. R.) A strengthened Huygens principle for a certain class of differential operators with constant coefficients. 606a: (with Volevič, L. R.) A certain class of hypoelliptic polynomials. 606b: (with Volevič, L. R.) Letter to the editors.
- Gini, Corrado. 7022a: La dissomiglianza. I. Indici di dissomiglianza tra distribuzioni semplici secondo caratteri quantitativi. 7022b: La dissomiglianza. II. Indici di dissomiglianza tra distribuzioni multiple secondo caratteri quantitativi. 7022c: La dissomiglianza. III. Indici di dissomiglianza per caratteri qualitativi.
- Ginibre, J. 1145: On the asymptotic exactness of the Bogoliubov approximation for many boson systems. See also Zerner, M., #2938.
- Ginzburg, B. D. 2675: A certain number-theoretic function which has an application in coding theory.
- Gioia, A. A. 1306: (with Vaidya, A. M.) Correction to: "Amicable numbers with opposite parity".
- de Giorgi, Ennio. See De Giorgi, Ennio.
- Giraud, Alain. 6628: Sur la détermination des lignes analytiques invariantes d'une récurrence analytique non linéaire du deuxième ordre.
- Giraud, Jean. 2757: Remarque sur une formule de Shimura-Taniyama.
- Girerd, Jean. 2459: (with Karplus, Walter J.) ★Traitement des équations différentielles sur calculateurs électroniques.
- Girolo, J. E. 6913: (with Cornette, J. L.) Connectivity retracts of finitely coherent Peano continua.
- Girsanov, I. V. 6101: Certain connections between Bellman's and Krotov's functions for a dynamic programming problem.
- Gisin, B. V. 3090: Lower bounds for the eigenvalues of the simplest nonlinear scalar field equation.
- Gitter, S. 6922: (with Mahowald, M.) The geometric dimension of real stable vector bundles. 3581: (with Mahowald, M. and Milgram, R. James) The nonimmersion problem for  $RP^n$  and higher-order cohomology operations.
- Giurescu, C. 2778: (with Boroi, E.) On certain matrix equations.
- Giusti, Enrico. 1763: Sulla regolarità delle soluzioni di una classe di equazioni ellittiche. 6607: Equazioni quasi ellittiche e spazi  $2^{p,q}(\Omega, \delta)$ . I. 570: (with Da Prato, G.) Equazioni di Schrödinger e delle onde per l'operatore di Laplace iterato in  $L^p(\mathbb{R}^n)$ . 5552: (with Da Prato, G.) Equazioni di evoluzione in  $L^p$ .
- Giv'on, Yehoshafat. 2553: On some properties of the free monoids with applications to automata theory.
- Gjačauskas, E. See Gečauskas, E.
- Gladkii, A. V. 7225: ★Lectures on mathematical linguistics.
- Gladstone, M. D. 59: A reduction of the recursion scheme. 6180: A single-axiom implicational calculus of given unsolvability.
- Glaeske, Hans-Jürgen. 5105: Über eine Integralgleichung  $n$ -dimensionaler Gitterfunktionen. 6251: Über eine Charakterisierung einer Gitterfunktion.
- Glagolev, V. V. 1227: Certain estimates of disjunctive normal forms of functions of the algebra of logic.
- Glaser, L. C. 4794: On a well-known method for trying to obtain a non-combinatorial triangulation of  $S^n$  for  $n \geq 5$ .
- Glasser, M. L. 2399: (with Hanson, Ira C.; Wood, Van E. and Fettis,

- Henry E.) Table errata. 2398: (with Bradley, Lee C.; Aggarwal, H. R.; Ablow, C. M. and Wood, Van E.) Table errata.
- Glassman, Neal D. 261: Cohomology of nonassociative algebras.
- Glauber, George. 1460: A characterization of the Suzuki groups. 6365: A characteristic subgroup of a  $p$ -stable group.
- Glammann, Maurice. 4453: Calcul théorique des nombres de Stirling de première espèce.
- Glazek, K. 2643: On certain characterizations of distributive lattices. 6325:  $\ast$ -associative algebras and  $\gamma$ -algebras.
- Gleichgewicht, B. 6338: Para-associative rings and algebras. Gleichgewicht, Boleslav. *See* Gleichgewicht, B.
- Glaser, Leon J. 2370: Correction to: "A note on the sphericity test".
- Glibowski, Edmund. 6819: (with Ditoen, Ryszard and Kościak, Stanisław) On a system of fundamental concepts for elementary geometry.
- Glickfeld, Barnett W. 3360: The Riemann sphere of a commutative Banach algebra.
- Glicksberg, I. 744: Dominant representing measures and rational approximation.
- Glimm, James. 7154: Boson fields with the  $\Phi^4$ : interaction in three dimensions.
- Gluck, Herman. 3457: Higher curvatures of curves in euclidean space. II.
- Gleikaufová, Dagmar. 7166: (with Vlach, Milan) Discrete problems in dynamic programming.
- Glushko, V. P. 3194: Classical solutions of boundary value problems for degenerate second order elliptic equations in arbitrary smooth domains.
- Glushkov, V. M. 5059: The abstract theory of automata. II.
- Gmurczyk, A. 3500: On approximative retracts.
- Gnedenko, B. V. 4843: (with Hincin, A. Ja.)  $\star$ Introduction to the calculus of probabilities. 5957: (with Kovalenko, I. N.)  $\star$ Introduction to queueing theory. 993: (with Beljaev, Ju. K. and Solov'ev, A. D.) On some stochastic problems of reliability theory.
- Gnedenko, B. W. *See* Gnedenko, B. V.
- Goble, L. F. 45: The iteration of deontic modalities.
- Godbillon, Claude. 2255: Feuilletages ayant la propriété du prolongement des homotopies.
- Godeaux, Lucien. 2753: Sur les surfaces algébriques de genres zéro et de bigenre supérieur à deux. 4070: Systèmes canoniques de sections d'une variété de Segre. 4071: Remarques sur les variétés de Segre et de Veronese. 4072: Sur les involutions du second ordre appartenant à une variété algébrique à trois dimensions. 4073: Sur une surface possédant une seule courbe canonique de genre cinq. III. 4092:  $\star$ Various geometries. 5210: Variétés algébriques déduites des équations d'une surface de Veronese. 5211: Congruences de courbes sur une variété algébrique à trois dimensions. 5212: Congruences de courbes sur une variété algébrique à trois dimensions. II. 5800: Recherches sur les surfaces associées à des suites de Laplace périodiques. IV.
- Godunova, E. K. 358: Generalization of a two-parameter Hilbert inequality. 1542: Integral inequalities with convex functions. 4220: (with Levin, V. I.) A general class of inequalities containing Steffensen's inequality.
- Goebel, K. 1540: On a property of Lipschitzian transformations. 4565: On the  $\beta$ -contractions.
- Goel, R. M. 2966: A class of close-to-convex functions.
- Goffman, Casper. 4214: Two remarks on linearly continuous functions. 4557: Vector lattices and regularizers. 6671: (with Waterman, Daniel) Functions whose compositions with homeomorphisms have everywhere convergent Fourier series.
- Goghvil, G. P. 1317: The representation of numbers by quaternary quadratic forms with coefficients equal to 1 and 11.
- Gohberg, I. C. 5697: (with Budjanu, M. S.) The factorization problem in abstract Banach algebras. I. Splitting algebras. 5698: (with Budjanu, M. S.) The factorization problem in abstract Banach algebras. II. Irreducible algebras. 1915: (with Fel'dman, I. A.)  $\star$ Projection methods for solving Wiener-Hopf equations. 4658: (with Fel'dman, I. A.) The indices of multiple extensions of matrix functions. 1955: (with Markus, A. S.) Stability of bases of Banach and Hilbert spaces. 3387: (with Solbel'man, O. I.) Some remarks on similarity of operators. 5077: (with Bogoljubov, N. N. and Šilov, G. E.) Mark Grigor'evič Krein: On his sixtieth birthday.
- Golt, Edward H., Jr. 3765: (with Stroud, A. H.) Some extensions of integration formulas.
- Golan, I. M. 2798: Isolated components in non-commutative rings.
- Gokhale, D. V. 3676: A note on the concept of efficiency of tests in multivariate problems.
- Gol'eer, Ja. M. 5490: On the investigation of a certain critical case of stability of stationary systems.
- Goldbach, Christian. *See* Fuss, P.-H., #1220.
- Gol'dberg, A. A. 1600: A certain functional equation. 5393: The distribution of the values of an entire function with respect to arguments.
- Goldberg, J. L. 1662: (with Brown, J. W.) A note on generalized Appell polynomials.
- Gol'dberg, M. P. 1068: (with Vehov, P. P.) On the problem of solving systems of linear algebraic equations.
- Goldberg, Myron. 3964: (with Alspach, Brian and Moon, J. W.) The group of the composition of two tournaments.
- Goldberg, S. I. 4750: On the topology of compact contact manifolds. 2128: (with Blair, D. E.) Topology of almost contact manifolds. 3485: (with Kobayashi, Shoshichi) Holomorphic bisectonal curvature.
- Gol'dberg, V. V. 3462: Laplace sequences in  $n$ -dimensional projective space. 3463: A generalization of a theorem of Godeaux.
- Goldberger, Arthur S. 5982:  $\star$ Topics in regression analysis.
- Gol'denstein, L. S. 3376: A discrete analog of the multidimensional Wiener-Hopf integral equation.
- Goldfeld, Morris. 6258: Densities in arithmetic progressions.
- Gol'dina, N. M. 403: (with Skotnikova, G. A.) Ranges of values of certain coefficient systems of functions typically real in a ring.
- Goldman, Jerry I. 264: On a class of nodal noncommutative Jordan algebras.
- Goldschmidt, Hubert. 1746: Integrability criteria for systems of nonlinear partial differential equations.
- Goldstein, Richard Z. 925: Embedding a  $p$ -sphere in a product of  $p$ -spheres.
- Golo, V. L. *See* Reiner, Irving, #5270.
- Goledec, V. Ja. 5351: Certain properties of representations of an infinite dimensional Clifford algebra.
- Golovkin, K. K. 4601: A generalization of Marcinkiewicz's interpolation theorem.
- Gol'shtynskii, V. *See* Holsztynski, W.
- Golub, Gene Howard. 4944: Least squares, singular values and matrix approximations.
- Golubov, B. I. 690: A certain class of complete orthogonal systems.
- Golunkov, Ju. V. 1190: The class of mappings of  $P_2^n$  into itself which are realizable by formulas.
- Goluzina, E. G. 1585: On the coefficient regions of a certain class of functions which are meromorphic in a disc.
- Gomes, Ruy Luis. 4613: Un théorème sur les distributions vectorielles.
- Gonsior, Harry. 4631: Injective hulls of  $C^*$  algebras. 6026: An elementary construction in sheaf theory.
- Gonzalez, Mario O. 6414: A generalization of the concept of integral.
- Good, I. J. 1021: A Bayesian significance test for multinomial distributions. 4919: Corrigendum to: "Weight of evidence, corroboration, explanatory power, information and the utility of experiments".
- Goodman, Leo A. 7006: How to minimize or maximize the probabilities of extinction in a Galton-Watson process and in some related multiplicative population processes.
- Goodman, Roe. 3381: Analytic domination by fractional powers of a positive operator.
- Goodstein, R. L. 12: Existence in mathematics.
- Gopengauz, B. E. 2967: Certain classes of analytic functions.
- Gorbanov, A. D. 4319: The solution of nonlinear boundary value problems for a system of ordinary differential equations. 538: (with Zverkina, T. S.) The solution of decomposable differential-difference equations.
- Gordadze, E. G. 709: Multidimensional singular integrals.
- Gorenstein, Daniel. 1482:  $p$ -constraint and the transitivity theorem.
- Gorin, E. A. 1996: The joint resolvent of elements of a Banach algebra.
- Gorodniĭ, V. V. 5180: A reciprocity law for the cyclotomic field of  $p^2$ -th roots of unity and its application to the investigation of certain indeterminate integer equations.

- Gorowara, Krishan K. 4722: Darboux curvature. 4723: Union Gaussian curvature.
- Gorlin, S. I. 5512: Certain questions of global stability under constantly acting perturbations in a normed linear space.
- Górski, W. 6867: On some generalization of Euler theorem in a Riemannian space  $V_n$ .
- Gossez, Jean-Pierre. 3401: Approximation de la solution d'inéquations variationnelles non linéaires.
- Gotusso, Laura. 2430: Sull'impiego dell'integrale di Kronecker per la separazione delle radici di sistemi non lineari. 6037: Sul calcolo delle soluzioni periodiche di equazioni differenziali non lineari mediante l'integrale di Kronecker.
- Göthe, Friedhelm. 6253: Über Farey'sche Brüche.
- Götsky, Martin. 5304: Unverkürzbare Produkte und Relationen in unitären Gruppen.
- Gouarné, R. See Kahan, Théo, #1127.
- Goulaouic, Charles. 727: (with Baouendi, Mohamed Salah) Commutation de l'intersection et des foncteurs d'interpolation. 5549: (with Baouendi, Mohamed Salah) Étude de la régularité et du spectre d'une classe d'opérateurs elliptiques dégénérés.
- Gould, G. G. 3713: The spectral representation of normal operators on a rigged Hilbert space.
- Gould, H. W. 1262: The bracket function,  $q$ -binomial coefficients, and some new Stirling number formulas. 133: (with Church, C. A., Jr.) Lattice point solution of the generalized problem of Terquem and an extension of Fibonacci numbers.
- Gourdin, M. 1126: ★Unitary symmetries and their application to high energy physics.
- Gourlay, A. R. 2471: (with Mitchell, A. R.) Split operator methods for hyperbolic systems in  $p$  space variables. 1101: (with Morris, J. Ll.) Deferred approach to the limit in non-linear hyperbolic systems. 3785: (with Morris, J. Ll.) Finite-difference methods for nonlinear hyperbolic systems. II.
- Govindarajulu, Zakkula. 7032: Distribution-free confidence bounds for  $P(X < Y)$ . 2388: (with Bartlett, Noel S.) Some distribution-free statistics and their application to the selection problem. 7053: (with Haynam, G. E. and Leone, F. C.) Extension of Mood's test to  $c$ -samples: Null distribution and exact power against exponential and rectangular alternatives.
- Govorov, V. E. 6349: Derived functors of radicals of modules.
- Goyal, R. P. 6696: Convergence of Meijer-Laplace transform.
- Grav, M. I. 3814: (with Gel'fand, I. M.) Irreducible representations of the Lie algebra of the group  $U(p, q)$ : Description of the discrete series of representations. 4764: (with Gel'fand, I. M.) Complexes of  $k$ -dimensional planes in the space  $C^n$  and Plancherel's formula for the group  $GL(n, C)$ .
- Graf, Klaus-Dieter. 319: Zur Kompositionsstruktur endlicher Gruppen mit Halluntergruppen.
- Gragg, William B. 3742: Truncation error bounds for  $g$ -fractions.
- Graham, R. L. 4027: (with van Lint, J. H.) On the distribution of  $n\theta$  modulo 1. 2614: (with Riordan, John) The solution of a certain recurrence.
- Gramain, André. 5893: Classe de Thom et caractéristiques d'Euler pour les variétés à bord. 6948: Une généralisation du degré normal d'une immersion en codimension 1.
- Gramsch, Bernhard. 785: Spektraleigenschaften analytischer Operator-funktionen.
- Granas, A. 3501: Fixed point theorems for the approximative ANR-s.
- Grandet-Hugot, Marthe. 3726: Éléments algébriques remarquables dans un corps de séries formelles. 4028: Une propriété des "nombres de Pisot" dans un corps de séries formelles.
- Grandis, Marco. 2231: Spazi con operatori e applicazioni al problema di Knaster.
- Grandolfi, Maria. 1670: Problemi ai limiti per le equazioni differenziali multivoche.
- Grässer, H. S. P. 798: Canonical transformations associated with second order problems in the calculus of variations.
- Gräzer, George. 2661: On polynomial algebras and free algebras. 6230: On the existence of free structures over universal classes.
- Grauert, Hans. 5333: (with Fischer, Wolfgang) ★Differential- und Integralrechnung. Band II: Differentialrechnung in mehreren Veränderlichen, Differentialgleichungen.
- Graver, Jack E. 1278: (with Yackel, James) Some graph theoretic results associated with Ramsey's theorem.
- Graves, Robert L. 3842: (with Telsor, Lester G.) An infinite-horizon discrete-time quadratic program as applied to a monopoly problem.
- Gray, H. L. 4941: (with Atchison, T. A.) Nonlinear transformations related to the evaluation of improper integrals. II. 4942: (with Atchison, T. A.) The generalized  $G$ -transform.
- Gray, James N. 5060: (with Harrison, Michael A. and Ibarra, Oscar H.) Two-way pushdown automata.
- Gray, W. J. 909: A fixed set theorem. 4800: A note on group invariant continua. 5862: The action of abelian groups on certain continua.
- Grebennikov, E. A. 3114: Certain estimates of the method of averaging for multifrequency systems of ordinary differential equations. 3138: Certain unsolved problems of differential equations with small parameter. 5024: Certain questions on the justification of averaging schemes in problems of celestial mechanics.
- Grebennjuk, D. G. 3256: Polynomials of degree  $\leq \infty$ , least deviating from zero on the segment  $[a, b]$ , whose coefficients are connected by two linear relations. 3257: On a certain class of weighted polynomials in several variables deviating least from zero.
- Greco, Silvio. 4059: Qualche condizione di henselianità per anelli non locali. 203: (with Arezzo, M.) Sul gruppo delle classi di ideali.
- Greechie, R. J. 2641: On the structure of orthomodular lattices satisfying the chain condition.
- Greenberg, James M. 623: (with MacCamy, Richard C. and Mizel, Victor J.) On the existence, uniqueness, and stability of solutions of the equation  $\sigma'(u_x)u_{xx} + \lambda u_{xx} = p_0 u_y$ .
- Greene, John M. 5361: Two-dimensional measure-preserving mappings.
- Greenleaf, F. P. 6395: (with Feldman, J.) Existence of Borel transversals in groups.
- Greenspan, H. 7099: (with Hafner, W. and Ribarič, M.) On varying stepsize in numerical integration of first order differential equations.
- Greenwood, J. A. 1878: A simple method of summing Bessel series.
- Greever, John. 2183: On spaces in which every closed set is a  $G_\delta$ . 3520: On screenable topological spaces.
- Greibach, Sheila. 1202: A note on undecidable properties of formal languages.
- Greiner, Peter C. 4399: Estimates for general coercive boundary problems on a half-space for a class of elliptic partial differential operators.
- Grenander, Ulf. 6005: (with Carlsson, Siv) Statistical approximation of plane convex sets.
- Gretsky, Neil E. 2099: Representation theorems on Banach function spaces.
- Greub, W. H. 221: ★Linear algebra. 222: ★Multilinear algebra.
- Gribanov, Ju. I. 365: A form of convergence of sequences of measurable functions. 1967: Certain classes of locally convex topological spaces. III. 1968: Certain properties of Köthe-Tsoplitz sequence spaces. 1969: Two criteria for the compactness of sets in Banach spaces of functions. 1970: Banach spaces of functions and linear integral operators. 3319: Some theorems on abstract coordinate spaces. 4641: Linear operators in abstract coordinate spaces.
- Griego, Richard J. 5938: Local times for transforms of Markov processes.
- Griffith, Phillip. 2856: A counterexample to a theorem of Chase. 5293: Decomposition of pure subgroups of torsion free groups. 6350: Separability of torsion free groups and a problem of J. H. C. Whitehead. 6374: Transitive and fully transitive primary abelian groups.
- Griffiths, Phillip A. 5215: Periods of integrals on algebraic manifolds. I. Construction and properties of the modular varieties.
- Grigor'ev, S. V. 971: Explicit extrapolation formulas for some probability processes.
- Grigorivker, I. M. 3096: The relationship between the number of elliptic and hyperbolic regions in the neighborhood of a singular point and the index of that point. 3097: Regions in the neighborhood of a singular point of the equation  $y' = Q(x, y)/P(x)$ . 3592: Computation of the rotation of a vector field.
- Grillet, P. A. 113: Translations and congruences in lattices. 3982: Free  $PQ$ -algebras. 6351a: Morphismes spéciaux et décompositions. 6351b: Quelques propriétés des catégories non abéliennes. 6351c:



- La suite exacte d'homologie dans une catégorie non abélienne. 3970: (with Varlet, J. C.) Complementedness conditions in lattices.
- Grimm, L. J. 4364: (with Schmitt, Klaus) Boundary value problems for delay-differential equations.
- Grimmer, R. C. 3165: (with Waltman, Paul) A comparison theorem for a class of nonlinear differential inequalities.
- Grimshaw, R. 3813: Propagation of surface waves at high frequencies.
- Grinberg, V. S. 7220: Determination of systems of graphs and the synthesis of finite automata.
- Grinblat, L. S. 2178: The partitioning of metric spaces into zero-dimensional sets. 6990: Limit theorems for functionals of measurable random processes.
- Grinšpun, Z. S. 3073: Certain classes of orthogonal polynomials.
- Grisvard, P. 5675: Equations opérationnelles abstraites dans les espaces de Banach et problèmes aux limites dans des ouvertures cylindriques. 6603: (with Geymonat, Giuseppe) Problemi ai limiti lineari ellittici negli spazi di Sobolev con peso.
- Grober, V. M. 3318: (with Byčkov, B. M.) The absence of an unconditional basis in the factor spaces  $L^1/H_0^1$  and  $L^1/H_0^2$ .
- Groemer, Helmut. 2531: On the min-max theorem for finite two-person zero-sum games. 3446: Einige Bemerkungen über zusammenhängende Lagerungen.
- Groeneveld, J. 2507: Estimation methods for Mayer's graphical expansions. I. Graphical expansions. 2508: Estimation methods for Mayer's graphical expansions. II. General procedure. 2509: Estimation methods for Mayer's graphical expansions. III. Estimation methods of degrees 0 and 1. 2510: Estimation methods for Mayer's graphical expansions. IV. Estimation methods of degree 2.
- Gromoll, D. 4751: (with Klingenberg, W. and Meyer, W.) ★Riemannsche Geometrie im Grossen.
- Gromov, M. L. 3555: The number of simplexes in subdivisions of finite complexes.
- Gromova, L. L. 2934: Some applications of the area principle.
- Gromova, P. S. 719: Some questions on the qualitative theory of integro-differential equations with deviating argument.
- de Groot, J. 3531: (with Maurice, M. A.) On the existence of rigid compact ordered spaces. 6912: (with Strecker, G. E.; Wattel, E. and Herrlich, H.) Strengthening Alexander's subbase theorem.
- Groschafková, Zdenka. 4649: (with Marek, Ivo) König's theorem and proof of convergence for the Kellog iteration process.
- Gross, Fletcher. 1463: (with Scott, W. R.) Solvable products of groups.
- Gross, Fred. 1601: On a remark of Utz. 1612: On factorization of elliptic functions. 1613: Errata: "On the equation  $f^n + g^n = 1$ ". 1614: Some theorems on factorization of meromorphic functions. 2989: On the periodicity of  $f(g)$ . 2990: On the equation  $f^n + g^n = 1$ . II.
- Gross, Herbert. See Studien zur Theorie der quadratischen Formen, #4014.
- Gross, K. I. 4614: Generalized Fourier transforms of distributions.
- Gross, Leonard. 3331: Potential theory on Hilbert space.
- Gross, Maurice. 2556: (with Lentin, André) ★Notions sur les grammaires formelles.
- Gross, W. 1307: (with Vacca, R.) Distribution of the figures 0 and 1 in the various orders of binary representations of  $k$ th powers of integers.
- Grossberg, Stephen. 539: Nonlinear difference-differential equations in prediction and learning theory. 540: Global ratio limit theorems for some nonlinear functional-differential equations. I, II. 3152: A prediction theory for some nonlinear functional-differential equations. II. Learning of patterns.
- Grosser, Siegfried. 5327: (with Moskowitz, Martin) Representation theory of central topological groups.
- Grossiord, D. 6019: Sur un algorithme de Laguerre utilisant la notion de saut.
- Grossman, Marvin W. 5699: An extremal property for certain spaces of lower semi-continuous functions.
- Grosswald, Emil. 3989: ★Topics from the theory of numbers.
- Grothendieck, A. See Harishorne, Robin, #219.
- Grove, Larry C. 766: Tensor products and compact groups.
- Grudo, E. I. 5500: Solutions of the Briot and Bouquet equation with deviating argument.
- Gruenberg, K. W. 275: The universal coefficient theorem in the cohomology of groups. 315: A new treatment of group extensions. 1512: Profinite groups.
- Grünbaum, Branko. 2085: ★Convex polytopes.
- Grunsky, Helmut. 1573: Errata to: "Über Extremaleigenschaften gewisser konformer Normalgestalten mehrfach zusammenhängender Gebiete". See also Schur, Issai, #3248.
- Grušin, V. V. 601: (with Vainberg, B. R.) Uniformly non-coercive problems for elliptic equations.
- Gruson, Laurent. 1971: Théorie de Fredholm  $p$ -adique. 5228: Fibrés vectoriels sur un polydisque ultramétrique.
- Gruźewski, A. 147: (with Schinzel, A.) Sur les itérations d'une fonction arithmétique.
- Grzegorzczak, Andrzej. 6159: Assertions depending on time and corresponding logical calculi.
- Guaraldo, Francesco. 2099: Sui vertici delle ipersuperficie e questioni connesse. 5789: Sulla nozione di vertice parabolico delle ipersuperficie.
- Gubanov, G. P. 4490: (with Koval'čuk, B. V.) The asymptotic estimate of the remainder in the approximation of continuous periodic functions by sums of Bernstein type.
- Gudiev, A. H. 1790: The Cauchy problem for normally hyperbolic equations with unbounded coefficients.
- Gudiyok, P. M. 4177: (with Barannik, L. F.) Projective representations of finite groups over rings.
- Gudović, N. N. 4389: The application of the difference method to the solution of nonlinear elliptic equations.
- Guennebaud, Bernard. 4619: Algèbres localement convexes sur les corps valués.
- Guenther, Ronald B. 5519: A note on a Harnack inequality for parabolic equations.
- Guerlac, H. 3893: Newton and Epicurus.
- Guerreiro, J. Santos. 755: Direct theory of distributions on a manifold.
- Guerrier, W. J. 194: Une remarque sur le théorème de Puiseux. 1340: The factorization of the cyclotomic polynomials mod  $p$ .
- Gugenheim, V. K. A. M. 916: Semisimplicial homotopy theory. 2836: Cohomology theory in the category of Hopf algebras.
- Guha, Mihir Kumar. 7124: Three dimensional stress system from plane stresses.
- Guha, U. C. 6640: On Levi's theorem on rearrangement of convergent series.
- Guiușu, Silviu. 2305: On stable ergodic sequences of events and random variables. 7210: Applications of information theory: Dynamical systems. Cybernetic systems.
- Guinn, T. 5754: Solutions of generalized optimization problems. 5755: First-order necessary conditions for generalized optimization problems.
- Guiraud, Jean-Pierre. 6073: Sur le problème de Couette et l'équation de Boltzmann. 6621: Problème aux limites intérieur pour l'équation de Boltzmann linéaire.
- Gulden, Samuel L. 2182: Equivalent forms of  $m$ -paracompactness.
- Gulliksen, Tor Høltedahl. 206: A proof of the existence of minimal  $R$ -algebra resolutions.
- Gumowski, Igor. 5753: Sur l'utilisation de la transformation de Friedrichs dans les problèmes variationnels.
- Gunderson, R. W. 3127: (with George, J. H.) On the equivalence of certain stability properties.
- Gundlach, Karl-Bernhard. 5153: Die Fixpunkte einiger Hilbertscher Modulgruppen.
- Gunning, R. C. 5888: ★Lectures on vector bundles over Riemann surfaces.
- Gunson, J. 6087: On the algebraic structure of quantum mechanics.
- Güntzer, Ulrich. 470: Modellringe in der nichtarchimedischen Funktionentheorie.
- Günzler, H. 4504: Vector valued functions on semigroups with almost periodic differences.
- Gupta, Arjun K. 1024: (with Pillai, K. C. Sreedharan) On the non-central distribution of the second elementary symmetric function of the roots of a matrix.
- Gupta, Hansraj. 1311: A system of equations having no nontrivial solutions. 3943: Enumeration of symmetric matrices.
- Gupta, R. N. 5256: On primitivity of matrix rings.
- Gupta, R. P. 4515: Some properties of generalized Hankel transform  $X_{\nu, k, m}$ .
- Gupta, R. S. 6432: On Steiner-symmetrized functions.

- Gupta, S. L. 3060: Certain definite integrals involving generalised Bessel functions.
- Gupta, Santi S. See Gupta, Shanti S.
- Gupta, Shanti S. 1018: Selection and ranking procedures and order statistics for the binomial distribution.
- Gurarii, V. P. 1897: Spectral analysis of bounded functions on the half axis. 3361: The structure of primary ideals in the rings of functions integrable with increasing weight on the half axis.
- Gureckii, V. V. 3861: (with Fertman, B. S.) A problem of optimum control.
- Gurel, Okan. 5042: (with Lapidus, Leon) Stability via Liapunov's second method. See also Modern mathematics conference, #5068.
- Gurevič, B. M. 5362: Certain conditions for the existence of K-decompositions for special flows.
- Gurevič, R. E. 3079: Convergence with a regulator in commutative l-groups.
- Gurian, Joan. 7044: (with Halperin, Max) Confidence bands in linear regression with constraints on the independent variables.
- Gur'janov, I. N. 1926: On the analytic theory of integro-differential equations.
- Gurland, John. 2350: (with Hinz, Paul) A method of analysing untransformed data from the negative binomial and other contagious distributions. 2362: (with Hinz, Paul) Simplified techniques for estimating parameters of some generalized Poisson distributions.
- Gurman, V. I. 3862: Method of multiple maxima and the conditions of relative optimality of degenerate regimes.
- Gurtin, Morton E. 4993: (with Coleman, Bernard D.) Corrections to: "Waves in materials with memory. III. Thermodynamic influences on the growth and decay of acceleration waves". 7121: (with Williams, William O.) On the inclusion of the complete symmetry group in the unimodular group. 1110: (with Mizel, Victor J. and Williams, William O.) A note on Cauchy's stress theorem.
- Gusak, D. V. 4876: The distribution of the moment of attaining the maximum by a homogeneous process with independent increments.
- Gusakov, V. A. 6482: Properties of Temljakov-Bavrin type integrals.
- Gusčiora, H. 817: (with Dubikajtis, L.) On a hyperbolic model of the solid Laguerre geometry.
- Güssefeldt, Friedrich. 6308: Differentiale in Tensoralgebren.
- Gustafson, Karl. 3388: State diagrams for Hilbert space operators. 3399: Positive (noncommuting) operator products and semigroups.
- Gutiérrez Novoa, Lino. 6820: Ten axioms for three dimensional Euclidean geometry.
- Guljanskii, V. Ja. 1578: (with Aleksandrov, I. A.) Extremal problems for classes of analytic functions having a structural formula.
- Güttinger, W. 3825: (with Rieckers, A.) Spectral representations of Lorentz invariant distributions and scale transformation.
- Guttman, Irwin. 3691: (with Draper, Norman R.) Some Bayesian stratified two-phase sampling results. 2382: (with Tiao, G. C.) Analysis of outliers with adjusted residuals.
- Guy, Richard K. 2633: (with Beineke, Lowell W.) The coarseness of the complete graph. 96: (with Harary, Frank) On the Möbius ladders. 2627: (with Harary, Frank) On the Möbius ladders.
- Gyarmathi, L. 2073: Die Modelle der hyperbolischen ebenen Geometrie in der Möbiusschen Ebene. I.
- Gyires, Béla. 1993: Toeplitz matrices in quasi Hilbert algebras. I.
- Györy, Kálmán. 5230: (with Pethő, Árpád) On solutions, containing "many" zeros, of systems of homogeneous linear equations.
- Haas, I. J. 7187: (with Chen, C. F.) An extension of Oppelt's stability criterion based on the method of two hodographs.
- Habibullin, A. A. 519: (with Persidaki, K. P.) The reduction principle for differential equations in a nonlinear space  $\omega$ .
- Hadamard, Jacques. 850: ★La théorie des équations aux dérivées partielles. See also Œuvres de Jacques Hadamard, #6158.
- Haddad, Hadi M. 348: Chain functions, a generalization of chain sequences.
- Haddad, Labib. 6899: Sur quelques points de topologie générale.
- Hadeler, K. P. 2774: Ein inverses Eigenwertproblem. 7077: Newton-Verfahren für inverse Eigenwertaufgaben.
- Hadwiger, H. 2284: Geometrische Wahrscheinlichkeiten bei Durchstichen von Geraden durch Kugelflächen.
- Haefliger, André. 3882: (with Boéchat, Jacques) Plongements différentiables des variétés de dimension 4 dans  $R^7$ .
- Hafner, P. 6260: Automorphismen von binären quadratischen Formen.
- Hafner, W. 7089: (with Greenspan, H. and Ribarič, M.) On varying stepsize in numerical integration of first order differential equations.
- Hageman, L. A. 4945: (with Kellogg, R. B.) Estimating optimum overrelaxation parameters.
- Hahn, Frank. 2895: (with Effros, Edward G.) ★Locally compact transformation groups and  $C^*$ -algebras. 6435: (with Parry, William) Some characteristic properties of dynamical systems with quasi-discrete spectra.
- Hahn, Kyong T. 5826: Trigonometry in a hyperbolic space.
- Haimo, Deborah Pepper. 3285: (with Cholewinski, Frank M.) The Weierstrass-Laguerre transform. 4416: (with Cholewinski, Frank M.) Classical analysis and the generalized heat equation. See also Orthogonal expansions and their continuous analogues, #6141.
- Haimo, Franklin. 4169: Extensions of endomorphisms from the higher centres.
- Haimovici, Adolf. 4740: Sur la notion de longueur dans les espaces à connexion non-linéaire.
- Haimovici, M. 6063: On the bending of elastic plates.
- Haines, J. S. 2743: A note on direct products of free modules.
- Hainis, Ioannis Th. 3609: Random variables with values in Banach algebras and random transformations in Hilbert spaces.
- Hájek, J. 7054: Some new results in the theory of rank tests. 4925: (with Sidák, Zbyněk) ★Theory of rank tests.
- Hájek, Otomar. 878: Metric completion simplified.
- Hájek, P. 5094: †(with Vopěnka, P.) Concerning the V-models of set theory.
- Hajnal, András. 2635: (with Erdős, Pál) On chromatic graphs. 4769: (with Juhász, I.) Discrete subspaces of topological spaces. 84: (with Erdős, P. and Milner, E. C.) On sets of almost disjoint subsets of a set.
- Halacay, Andrew A. 7139: Field mapping through more than one boundary. I. Fundamentals. 7140: Field mapping through more than one boundary. II. Application.
- Halász, G. 6254: Über die Mittelwerte multiplikativer zahlentheoretischer Funktionen.
- Halberstam, H. 1329: (with Rotkiewicz, A.) A gap theorem for pseudoprimes in arithmetic progressions.
- Halbwachs, F. 1525: (with Kihlberg, A. and Müller, V. F.) Unitary irreducible representations of  $SU(2, 2)$ .
- Halfin, L. A. See Wilks, Samuel S., #3345.
- Halin, R. 5122: Unterteilungen vollständiger Graphen in Graphen mit unendlicher chromatischer Zahl.
- Halkin, Hubert. 5348: (with Hendricks, Edward C.) Subintegrals of set-valued functions with semianalytic graphs.
- Hall, C. A. 5235: (with Porsching, T. A.) A separation theorem for nonsymmetric matrices. 7078: (with Porsching, T. A.) Computing the maximal eigenvalue and eigenvector of a positive matrix. 1070: (with Spanier, J.) Nested bounds for the spectral radius.
- Hall, Marshall, Jr. 80: ★Combinatorial theory.
- Hall, T. E. 2876: Primitive homomorphic images of semigroups.
- Hall, Wayne. 4213: (with Hight, Donald W.) SAM functions.
- Hallam, Thomas G. 5483: Asymptotic expansions in certain second order nonhomogeneous differential equations. 6549: Weakly bounded systems of differential equations. 520: (with Komkov, V.) Stability of solutions of ordinary differential equations with respect to a closed set.
- Halmos, P. R. 2179: Permutations of sequences and the Schröder-Bernstein theorem. 6788: Irreducible operators.
- Halperin, Max. 7044: (with Gurian, Joan) Confidence bands in linear regression with constraints on the independent variables.
- Halpern, Francis R. 5007: ★Special relativity and quantum mechanics.
- Halpern, Herbert. 5704: A spectral decomposition for self-adjoint elements in the maximum GCR ideal of a von Neumann algebra with applications to noncommutative integration theory.
- Hamachi, Toshihiro. 7003: Note on the recurrence of a Markov chain.
- Hamada, Suguru. 276: Cohomology of generalized dihedral groups.
- Hamdan, M. A. 4934: On the structure of the tetrachoric series.
- Hamelink, Ronald C. 6203: A partial characterization of clique graphs.

- Hammer, Joseph. 2693: On some analogies to a theorem of Blichfeldt in the geometry of numbers.
- Hammersley, J. M. 2403: (with Handscomb, D. C.) ★Les méthodes de Monte-Carlo.
- Hanan, M. 99: On Steiner's problem with rectilinear distance.
- Hanani, H. 2775: (with Netanyahu, E. and Reichaw, M.) Eigenvalues of infinite matrices.
- Handel, David. 3582: An embedding theorem for real projective spaces.
- Handelman, G. H. 527: (with Keller, J. B. and O'Malley, R. E., Jr.) Loss of boundary conditions in the asymptotic solution of linear ordinary differential equations. I. Eigenvalue problems.
- Handelsman, Richard A. 670: (with Bleistein, Norman) Uniform asymptotic expansions of certain integrals.
- Handscomb, D. C. 2403: (with Hammersley, J. M.) ★Les méthodes de Monte-Carlo.
- Hangan, Th. 3486: On the Riemannian structure of the real and complex Grassmann manifolds.
- Hanna, Martin S. 571: (with Smith, Kennan T.) Some remarks on the Dirichlet problem in piecewise smooth domains.
- Hanš, Otto. 7163: (with Drimi, Miloslav) On a randomized optimization procedure.
- Hansen, Eldon R. 4985: On solving systems of equations using interval arithmetic. 4946: (with Smith, Roberta) Interval arithmetic in matrix computations. II.
- Hansen, W. 5417: Charakterisierung von Familien exzessiver Funktionen.
- Hansen-Schmidt, Uwe. 2890: (with Thedy, Armin) Über alternative Gruppoide, deren Zentrum alle Quadrate enthält.
- Hanson, Ira C. 2400: Table errata. 2399: (with Wood, Van E.; Glasser, M. L. and Fettis, Henry E.) Table errata.
- Hanson, M. A. 6109: Duality for a class of infinite programming problems. 2527: (with Mond, Bertram) A class of continuous convex programming problems. 3413: (with Mond, Bertram) Symmetric duality for variational problems. 4689: (with Mond, Bertram) Duality for control problems. 7178: (with Mond, Bertram) Symmetric duality for quadratic programming in complex spaces.
- Hanson, Richard J. 3080: Analytic linear systems of differential equations in implicit form.
- Hanurav, T. V. 1053: Hyper-admissibility and optimum estimators for sampling finite populations.
- Hapnev, M. M. 1727: Instability under constantly acting perturbations.
- Haq, Muhammad Rashidul. 6925: Čech homology and cohomology groups of compact,  $l^\infty$  spaces. I.
- Haq, Md. Rashidul. See Haq, Muhammad Rashidul.
- Harada, Koichiro. 6369: Finite simple groups with short chains of subgroups.
- Harada, Manabu. 1407: Note on orders over which an hereditary order is projective. 1434: On special type of hereditary abelian categories.
- Harary, Frank. 2626: (with Chartrand, Gary) Planar permutation graphs. 98: (with Guy, Richard K.) On the Möbius ladders. 2627: (with Guy, Richard K.) On the Möbius ladders. 3936: (with Palmer, Edgar M.) On acyclic simplicial complexes. 3961: (with Palmer, Ed) The groups of the small digraphs. See also Graph theory and theoretical physics, #6208.
- Harborth, Helko. 89: Über das Maximum bei Stirlingschen Zahlen 2. Art.
- Harder, Günter. 1378: Halbeinfache Gruppenschemata über Dedekindringen.
- Hardie, K. A. 3564: Weak homotopy equivalence of  $P$ -functors.
- Harding, E. F. 4702: The number of partitions of a set of  $N$  points in  $k$  dimensions induced by hyperplanes.
- Hardy, J. 5181: Sums of two squares in a quadratic ring.
- Hardy, Jack. 6896: (with Lacey, H. E.) Notes on perfectness and total disconnectedness.
- Harlamov, B. P. 3656: Some properties of branching processes with an arbitrary set of particle types.
- Harley, Peter W. 4795: The product of an  $n$ -cell modulo an arc in its boundary and a 1-cell is an  $(n+1)$ -cell.
- Harman, Harry H. 4909: ★Modern factor analysis.
- Harris, Bernard. 7033: Statistical inference in the classical occupancy problem unbiased estimation of the number of classes. 400: (with Schoenfeld, Lowell) Asymptotic expansions for the coefficients of analytic functions. 1402: (with Schoenfeld, Lowell) Erratum to: "The number of idempotent elements in symmetric semigroups".
- Harris, T. C. 532: Periodic solutions of arbitrarily long periods in Hamiltonian systems.
- Harris, W. A., Jr. 3225: (with Tolle, Jon W.) A nonlinear functional equation.
- Harrison, Michael A. 5060: (with Gray, James N. and Ibarra, Oscar H.) Two-way pushdown automata.
- Harrison, Donald K. 7150: (with Hirschfelder, Joseph O.) An iterative procedure for the solution of perturbation equations.
- Harrow, M. 4328: Further results for the solution of certain third order differential equations.
- Harter, H. Leon. 7028: (with Moore, Albert H.) Maximum-likelihood estimation, from doubly censored samples, of the parameters of the first asymptotic distribution of extreme values.
- Hartigan, J. A. 2347: Representation of similarity matrices by trees.
- Hartley, B. 5280: (with Stonehewer, S. E.) On some questions of P. Hall concerning simple, generalized soluble groups.
- Hartley, H. O. 3721: (with Chakrabarty, R. P.) Evaluation of approximate variance formulas in sampling with unequal probabilities and without replacement.
- Hartman, Philip. 526: On a class of perturbations of the harmonic oscillator. 1728: On disconjugate differential equations. 4585: Convex sets and the bounded slope condition. 5354: On limits of Riemann sums and the range of integrals.
- Hartshorne, Robin. 219: ★Local cohomology.
- Haruki, Hiroshi. 1828: On parallelogram functional equations. 4255: On an integral mean-value theorem in analytic function theory. 4449: On the functional equation  $|f(x+iy)| = |g(x) + h(iy)|$ . 6632: On inequalities generalizing a functional equation connected with Ivory's theorem. 6633: On inequalities generalizing the Pythagorean functional equation and Jensen's functional equation. 6634: On a functional inequality connected with the parallelogram inequality.
- Harzheim, E. 141: Eine kombinatorische Frage zahlentheoretischer Art. 1256: Ein Satz der kombinatorischen Mengenlehre.
- Hasanov, E. G. 437: (with Litvinčuk, G. S.) Boundary value problems with shift and conjugation for a system of analytic functions.
- Hasanov, R. T. 723: (with Ahmedov, S. A.) A certain class of nonlinear integro-differential equations.
- Hasagawa, Yoshimitsu. 3274: Order of the first Cesàro mean of the derived Fourier series.
- Haskell, P. S. 5770: Varieties representing certain systems of Schubert triangles.
- Has'minskii, R. Z. 530: On the stability of nonlinear stochastic systems. 6561: Stability in the first approximation for stochastic systems.
- Hasse, Maria. 6343: Die eine Kategorie links- bzw. rechtszentralisierende Kategorie.
- Hastings, Stuart P. 6565: Variation of parameters for nonlinear differential-difference equations. 1700: (with Lazer, A. C.) On the asymptotic behavior of solutions of the differential equation  $y^{(4)} = p(t)y$ .
- Hatori, Hirohisa. 2332: Some theorems in an extended renewal theory. V. 2333: (with Mori, Toshio) A renewal type theorem on continuous-time  $(J, X)$ -processes.
- Hattemer, J. R. 703: A class of reproducing kernels.
- Haupt, Otto. 6892: Bemerkungen zum Kneaserschen Vierscheitelsatz. 3491: (with Künnet, Hermann) ★Geometrische Ordnungen.
- Hauschild, Kurt. 6175: Die Nichtexistenz starkregulärer standarder Modelle in der Mengenlehre von Zermelo-Fraenkel und ihren widerspruchsfreien Erweiterungen. 2588: (with Wolter, Helmut) Zur Charakterisierung von Theorien mit syntaktisch beschreibbarer Auswahlfunktion.
- Havel, Václav. 815: One generalization of the fourth harmonic point. 2078: A characterization of affine planes over Veblen-Wedderburn systems with the right inverse property. 3985: Ternary half-groupoids and coordinatization. 4708: A note on polynars. 4709: One generalization of the fourth harmonic point. 6830: Nets and groupoids. II.



- Havin, V. P. 429: Approximation by analytic functions in the mean. 1636: (with Maz'ja, V. G.) Approximation in the mean by harmonic functions.
- Havinson, S. Ja. 1616: (with Markuševič, A. I. and Tumarkin, G. C.) The current status and problems of the theory of boundary properties of analytic functions.
- Havlíček, M. 1134: (with Votruba, J.) On the representation of infinite-dimensional Lie algebra  $A(P, S)$ .
- Hawkes, A. G. 2516: Gap-acceptance in road traffic.
- Hawkes, Trevor. 4162: On the class of Sylow tower groups. 4161: (with Carter, Roger and Fischer, Bernd) Extreme classes of finite soluble groups.
- Hawkins, John B. 790: (with Kammerer, William J.) A class of linear transformations which can be written as the product of projections.
- Hawlicsek, Kurt. 5540: Green-Funktionen für Randwertaufgaben parabolischer Differentialgleichungen.
- Hayakawa, Hisako. 4546: Some remarks on the existential theorem of potential theory.
- Hayakawa, Takeshi. 5242: On the positive definiteness and the convexity of a certain matrix.
- Hayat, René. 6708: Extension de la notion d'équation différentielle matricielle. Théorème d'existence et d'unicité. 6709: Dérivabilité et stabilité  $(\alpha, \beta, T)$  de la solution d'une équation différentielle dans le cas discontinu.
- Hayashi, Chikio. 2387: Corrections to: "Multidimensional quantification of the data obtained by the method of paired comparison".
- Hayashi, Kenji. 1089: On instability in the numerical integration of  $y' = -xy$  by multistep methods.
- Hayashi, Yoshiaki. 882: Regular spaces which are not countably meta-compact.
- Hayden, T. L. 3320: The extension of bilinear functionals. 3321: Representation theorems in reflexive Banach spaces.
- Hayek, Nacere. 475: Study of the differential equation  $x \cdot y' + (v+1) \cdot y' + y = 0$  and of its applications.
- Hayman, W. K. 4285: The boundary behaviour of Tsuji functions. 5396: An introduction to Nevanlinna theory.
- Haynam, G. E. 7053: (with Govindarajulu, Z. and Leone, F. C.) Extension of Mood's test to c-samples: Null distribution and exact power against exponential and rectangular alternatives.
- Head, T. J. 6386: Homomorphisms of commutative semigroups as tensor maps.
- Heading, John. 3120: Wave propagation governed by an infinite number of transition points.
- Headley, V. B. 482: (with Swanson, C. A.) An extension of Airy's equation.
- Heap, B. R. 106: (with Lynn, M. S.) A note on  $p$ -cyclic matrices and digraphs. 1264: (with Lynn, M. S.) The structure of powers of nonnegative matrices. I. The index of convergence. 1265: (with Lynn, M. S.) The structure of powers of nonnegative matrices. II. The index of maximum density.
- Hearon, John Z. 225: On the singularity of a certain bordered matrix. 232: A generalized matrix version of Rennie's inequality. 1382: Polar factorization of a matrix. 2770: Symmetrizable generalized inverses of symmetrizable matrices. 2779: Partially isometric matrices. 5236: Idempotent matrices with nilpotent difference.
- Heath, Peter. See De Morgan Augustus, #6147.
- Hedetniemi, Stephen. 6204: On partitioning planar graphs.
- Hedlund, G. A. 4454: Remarks on the work of Axel Thue on sequences.
- Hedrlin, Z. 6344: (with Pultr, A. and Šedivá-Trnková, Věra) Concerning a categorical approach to topological and algebraic theories.
- Hedstrom, G. W. 6051: The rate of convergence of some difference schemes.
- Heesch, Heinrich. 5781: ★Reguläres Parkettierungsproblem.
- Hegé, Viljays S. 7060: An optimum property of the Horvitz-Thomson estimate.
- Hegemier, G. A. 7125: On nonlinear steady-state solutions to moving load problems.
- Hegerfeldt, G. C. 330: Branching theorem for the symplectic groups.
- Heidema, J. 6171: Contributions to the metamathematical theory of ideals. II. Metamathematical prime ideals and radicals.
- Heil, Erhard. 5785: Über die Auswahlätze von Blaschke und Arzela-Ascoli. 5796: Abschätzungen für einige Affinvarianten konvexer Kurven.
- Heineken, Hermann. 300: Vektorräume mit mehreren antisymmetrischen Bilinearformen.
- Heins, A. E. 4412: (with Friedlander, F. G.) On a singular boundary value problem for the Euler-Darboux equation.
- Heinz, Erhard. 1786: Über das Nichtverschwinden der Funktional-determinante bei einer Klasse eindeutiger Abbildungen.
- Heinzer, William. 1358: (with Gilmer, Robert) Irredundant intersections of valuation rings.
- Held, Dieter. 5283: Eine Kennzeichnung der Mathieu-Gruppe  $M_{23}$  und der alternierenden Gruppe  $A_{10}$ .
- Helgason, Sigurdur. 4765: A duality in integral geometry on symmetric spaces. 4753: (with Korányi, A.) A Fatou-type theorem for harmonic functions on symmetric spaces.
- Hell, P. 5116: Rigid undirected graphs with given number of vertices.
- Heller, Sidney. 1066: On the uniform positivity of a certain finite difference matrix.
- Helling, Heinz. 4017: Bestimmung der Kommensurabilitätsklasse der Hilbertschen Modulgruppe.
- Helmberg, G. 371: (with Simons, F. H.) A dualization of Kac's recurrence theorem.
- Helten, Burrell W. 2782: Logarithms of matrices.
- Helwig, Karl-Heinz. 265: Über Mutationen von Jordan-Algebren. 1432: Über Automorphismen und Derivationen von Jordan-Algebren.
- Hendricks, Edward C. 5348: (with Halkin, Hubert) Subintegrals of set-valued functions with semianalytic graphs.
- Hengartner, Walter. 6470: Propriétés des restrictions d'une fonction plurisousharmonique ou entière dans  $C^n$  d'ordre fini aux droites complexes  $C^1(z, u)$ .
- Hennefeld, Julien. 6755: A note on the Arens products.
- Hennequin, P. L. 7111: Méthodes probabilistes en calcul d'erreurs.
- Henney, Dagmar. 1532: Properties of set-valued additive functions.
- Hensel, Gustav. 5096: (with Putnam, Hilary) On the notational independence of various hierarchies of degrees of unsolvability.
- Hepp, Klaus. See Jost, Res, #6090.
- Herbrand, Jacques. 24: ★Écrits logiques.
- Herda, Hans-Heinrich. 6743: Modular spaces of generalized variation.
- Hering, Christoph. 295: Zweifach transitive Permutationsgruppen, in denen 2 die maximale Anzahl von Fixpunkten von Involutionen ist. 4712: Über projektive Ebenen vom Lenz-Typ III.
- Herman, G. T. 3923: The halting problem of one state Turing machines with  $n$ -dimensional tape.
- Herman, Victor. 5556: La caractérisation fonctionnelle de la fonction rationnelle d'une variable complexe.
- Hörmander, L. See Hörmander, Lars.
- Hermann, Robert. 342: Analytic continuation of group representations. VI. 2500: The discrete symmetries of elementary particle physics.
- Hermann of Carinthia. See Busard, H. L. L., #1216.
- Herold, Horst. 5461: ★Rantwertprobleme bei Differentialgleichungen 2. Ordnung im Komplexen.
- Herrlich, Horst. 2184: On intersections of compact sets. 2185: Mengen reeller Zahlen. Ordnungstheoretische und topologische Kennzeichnung. 6912: (with Strecker, G. E.; Wattel, E. and de Groot, J.) Strengthening Alexander's subbase theorem.
- Herstein, I. N. 2790: ★Noncommutative rings. 6324: On a type of Jordan mapping.
- Herz, C. 1097: The ideal theorem in certain Banach algebras of functions satisfying smoothness conditions.
- Hestenes, David. 6859: Multivector calculus.
- Hettmansperger, Thomas P. 7055: On the trimmed Mann-Whitney statistic.
- Heuchenne, C. 3957: Sur le critère de chromatocité de Hajos et Ore. 5123: Partage d'un groupe en cliques et coloriage d'un graphe.
- Heupel, Wolfgang. 2686: Die Verteilung der ganzen Zahlen, die durch quadratische Formen dargestellt werden.
- Heuser, Harro. 3392:  $Z$ -symmetrisierbare Operatoren.
- Heyde, C. C. 2297: On the converse to the iterated logarithm law. 4852: A further generalization of the arc-sine law.
- Hoyer, H. 6970: Allgemeine Grenzwertsätze der Wahrscheinlichkeitsrechnung.
- Heytin, A. See Troelstra, A. S., #26.

- Hibbard, Thomas N. 6136: A generalization of context-free determinism.
- Higgins, Thomas J. 6563: (with Tsou, Hsi-chen) Generalized methods of the first-order approximation and of the refined first-order approximation for the analysis of nonlinear two-degree-of-freedom systems.
- Hight, Donald W. 4213: (with Hall, Wayne) SAM functions.
- Higman, Donald G. 2854: (with Sims, Charles C.) A simple group of order 44,352,000.
- Hijkata, Hiroaki. 1451: On certain groups with involutive generators.
- Hilbert, David. 4696: ★Grundlagen der Geometrie.
- Hildebrand, Francis B. 3769: ★Finite-difference equations and simulations.
- Hildebrand, S. K. 2170: (with Poe, R. L.) The separation axioms for invertible spaces.
- Hildebrandt, S. 4578: (with Schmidt, B.) Zur Konvergenz von Operatorprodukten im Hilbertraum.
- Hildenbrand, Werner. 2513: Über stetige Korrespondenzen.
- Hill, C. Denson. 610: (with Cannon, J. R.) On the infinite differentiability of the free boundary in a Stefan problem. 3774: (with Cannon J. R.) A finite-difference method for degenerate elliptic-parabolic equations.
- Hill, G. W. 2349: (with Davis, A. W.) Generalized asymptotic expansions of Cornish-Fisher type.
- Hill, Paul. 4159: On primary groups with uncountably many elements of infinite height.
- Hillion, Pierre. 6080: Noncompact groups in elementary-particle theory.
- Hillman, A. P. 7177: (with Mead, D. G.; O'Keefe, K. B. and O'Keefe, E. S.) A dynamic programming generalization of  $xy$  to  $n$  variables.
- Hilt, Sandra Ness. 496: An existence theorem for non-linear differential systems.
- Hilton, A. J. W. 1364: (with Daykin, D. E.) Bases for infinite intervals of integers.
- Hilton, Peter J. 2835: On systems of interlocking exact sequences. 3556: On the homotopy type of compact polyhedra. 3557: On the Grothendieck group of compact polyhedra. 3558: Some remarks concerning the semiring of polyhedra. 4142: Filtrations. 5889: (with Reitzberg, Joseph) Note on principal  $S^0$ -bundles.
- Himmelberg, C. J. 3510: Quotients of completely regular spaces. 5543: Pseudo-metrizability of quotient spaces. 4787: (with Van Vleck, F. S.) Some remarks on Filippov's lemma.
- Hinčin, A. Ja. 4843: (with Gnedenko, B. V.) Introduction to the calculus of probabilities.
- Hinrichsen, Diederich. 462: ★Randintegrale und nukleare Funktionenräume.
- Hinton, Don B. 1701: A criterion for  $n-n$  oscillations in differential equations of order  $2n$ . 3103: Some stability conditions for  $y'' + qy = 0$ .
- Hinz, Paul. 2350: (with Gurland, John) A method of analysing untransformed data from the negative binomial and other contagious distributions. 2362: (with Gurland, John) Simplified techniques for estimating parameters of some generalized Poisson distributions.
- Hion, Ja. 1292:  $\Omega$ -ringoids,  $\Omega$ -rings and their representations.
- Hiromi, Genkō. 5395: On the existence of meromorphic functions with preassigned asymptotic spots. 1588: (with Mutō, Hideo) On the existence of analytic mappings. II.
- Hironaka, Heisuke. 210: Smoothing of algebraic cycles of small dimensions. 1372: Characteristic polyhedra of singularities.
- Hirose, Ken. 5095: An investigation on degrees of unsolvability.
- Hirsch, Guy. 2246: Homologie des espaces fibrés et groupes d'homotopie de  $SU(n)$ .
- Hirsch, P. M. 2441: Evaluation of orthogonal polynomials and relationships to evaluating multiple integrals.
- Hirschfeld, R. A. 2941: Irreducible Markov operators with quasi-discrete spectrum. 6692: Décomposition spectrale des représentations non unitaires. 4621: (with Zelazko, W.) On spectral norm Banach algebras.
- Hirschfelder, Joseph O. 7150: (with Harris, Donald K.) An iterative procedure for the solution of perturbation equations.
- Hirzebruch, F. 4825: (with Mayer, K. H.) ★ $O(n)$ -Mannigfaltigkeiten, exotische Sphären und Singularitäten.
- Hismiev, N. G. 1282: Some remarks on distributive lattices. 3921: Unsolvability of the elementary theory of a free lattice.
- Hitojumatu, Sin. 1063: On the numerical computation of incomplete gamma function.
- Hlaváček, Ivan. 7128: Variational principles in the linear theory of elasticity for general boundary conditions.
- Hlavatý, Václav. 3483: Classification of space-time curvature tensor. Via. Complex basic characteristics of the types I, II, IV.
- Hoadley, A. Bruce. 5979: On the probability of large deviations of functions of several empirical cdf's.
- Hoang Din' Zung. 436: The stability of the inverse boundary value problem of analytic functions.
- Hoare, A. H. M. 2857: On finite Abelian groups.
- Hobby, C. 5296: Finite groups with normal normalizers.
- Hochstadt, Harry. 491: Hill's equations with half-periodic coefficients.
- Hoeking, J. G. 2164: Invert sets in polyhedra.
- Hoeking, R. R. 2371: (with Smith, Wm. B.) Estimation of parameters in the multivariate normal distribution with missing observations.
- Hodge, W. V. D. 932: The topology of varieties in complex projective space.
- Hodges, J. L., Jr. 7027: (with Bickel, P. J.) The asymptotic theory of Galton's test and a related simple estimate of location.
- Hodgkin, Luke. 6924: (with Anderson, D. W.) The  $K$ -theory of Eilenberg-MacLane complexes.
- Hodgson, J. P. E. 5879: Obstructions to concordance for thickenings.
- Hoehsmann, K. 2863: (with Roquette, P. and Zassenhaus, H.) A cohomological characterization of finite nilpotent groups.
- Hoeffding, W. 4926: Some recent developments in nonparametric statistics.
- Hoege-Krohn, J. R. 4666: Partly gentle perturbation with application to perturbation by annihilation-creation operators. 4667: Partly gentle perturbations with application to perturbations by annihilation-creation operators. 4668: Gentle perturbations by annihilation-creation operators.
- Hoehnke, Hans-Jürgen. 2663: Radikale in allgemeinen Algebren.
- Hoffman, Frederick. 301: (with Welch, Lloyd R.) Totally variant sets in finite groups and vector spaces.
- Hoffman, Kenneth. 763: (with Rossi, Hugo) Extensions of positive weak\*-continuous functionals.
- Höfliger, P. 6244: Geschlechterteilung der reduzierten, positiven quaternären quadratischen Formen mit Diskriminante  $\leq 64$ .
- Hofmann, Jos. E. 13: Vom öffentlichen Bekanntwerden der Leibnizschen Infinitesimalmathematik.
- Hofmann, Karl Heinrich. 4195: Categories with convergence, exponential functors, and the cohomology of compact abelian groups. 6398: (with Mostert, Paul S.) One dimensional coset spaces.
- Hofmann, Peter. 1095: Asymptotic expansions of the discretization error of boundary value problems of the Laplace equation in rectangular domains.
- Hofmeister, Gerd Rolf. 135: Über eine Menge von Abschnittsbasen. II.
- Hoggatt, V. E., Jr. 6193: Fibonacci numbers and generalized binomial coefficients. 5140: (with Lind, D. A.) A primer for the Fibonacci numbers. VI.
- Hoiland, Einar. 7134: Discussion of a hyperbolic equation relating to inertia and gravitational fluid oscillations.
- Hokama, Kenji. 5820: On isometries in an affine symmetric space.
- Holbrook, John A. R. 4558: Seminorms and the Egoroff property in Riesz spaces.
- Holcomb, B. D. 6106: (with Flogie, J. and Burrus, W. R.) The use of mathematical programming for solving singular and poorly conditioned systems of equations.
- Holgate, P. 3852: The genetic algebra of  $k$  linked loci.
- Holla, M. S. 3670: Discrete distributions with prior information.
- Holland, Samuel S., Jr. 5681: On the adjoint of the product of operators.
- Hollander, Myles. 3709: Asymptotic efficiency of two nonparametric competitors of Wilcoxon's two sample test.
- Holm, Per. 6934: Microbundles and  $S$ -duality.
- Holman, Wayne J., III. 3815: (with Biedenharn, Lawrence C., Jr.) A general study of the Wigner coefficients of  $SU(1, 1)$ .
- Holmes, Paul T. 4885: On non-dissipative Markov chains.
- Holmes, R. B. 3367: A formula for the spectral radius of an operator. 4483: (with Kripke, Bernard) Smoothness of approximation.

- Holsatyński, W. 891: Minimal Hausdorff spaces and  $T_1$ -bicompa. 5855: The extension of mappings into a sphere from one summand to a countable sum. 5857: Universality of mappings onto the products of snake-like spaces. Relation with dimension. 5864: Unicoherent quasi-lattices and fixed point theorem for the snake-wise connected spaces. 6735: Linearization of isometric embeddings of Banach spaces. Metric envelopes. 127: (with Fajtlowicz, S.; Mycielski, J. and Weglorz, B.) On powers of bases in some compact algebras.
- Homma, Tatsuo. 6939: PL approximations of homeomorphisms of manifolds.
- Homuth, H.-H. 4642: Eine Verallgemeinerung der Regula Falsi auf Operatorgleichungen.
- Honda, Kin'ya. 5297: On direct sums of countable, reduced, abelian  $p$ -groups.
- Honda, Kôji. 750: On normed lattices topologically isomorphic to some Orlicz space  $L_{\phi}^*$ .
- Honda, Taira. 1370: On the Jacobian variety of the algebraic curve  $y^2 = 1 - x^2$  over a field of characteristic  $p > 0$ . 5216: Isogeny classes of abelian varieties over finite fields.
- Hong, Dang Xuan. 4770: Some theorems on generalized invertible spaces.
- Hoo, C. S. 923: Remarks on the bordism algebra of involutions. 3548: A note on the homotopy-commutativity of suspensions. 4812: Maps which induce the zero map on homotopy. 5875: A note on a theorem of Ganea, Hilton and Peterson.
- Hooley, John. 1251: Some extensions of Cantor's power-set theorem.
- van Hoorn, Willy G. 2816: (with van Roozelaar, B.) Fundamental notions in the theory of seminarrings.
- Hoppenstedt, Frank. 1730: Asymptotic stability in singular perturbation problems.
- Horadam, A. F. 5141: Special properties of the sequence  $W_n(a, b; p, q)$ .
- Horadam, E. M. 1330: On the number of pairs of generalized integers with least common multiple not exceeding  $x$ .
- Hori, Motoo. 4896: (with Uchida, Minoru) Correction to: "Application of the theory of Markov processes to comminution. I. The case of discrete time parameter".
- Horibe, Yasuichi. 3662: (with Nishimura, Shôichi) An aspect of logistic law.
- Hörmander, Lars. 1977: Generators for some rings of analytic functions. 1978: Convolution equations in convex domains. 6595: ★Linear partial differential operators. 6596: On the characteristic Cauchy problem.
- Hornblower, R. 421: On a class of functions regular in the unit disc.
- Horneffer, Klaus. 4734: Dynamische Divergenz und Sprays.
- Hornich, H. 6594: Lineare partielle Differentialgleichungen von hoher Ordnung.
- Horôko, M. P. 5576: Uniform approximation of continuous functions by polynomials in the Haar system.
- Horrocks, G. 2765: A construction for locally free sheaves.
- Hoschek, Josef. 5790: Eine Erweiterung der natürlichen Geometrie der Strahlflächen.
- Hoskin, M. A. See Mathematical papers of Isaac Newton, #3901.
- Hosoi, Tsutomu. 33: A criterion for the separable axiomatization of Gödel's  $S_{\omega}$ .
- Hosokawa, Fujitsugu. 911: A concept of cobordism between links.
- Hotta, Ryoshi. 6959: The generalized Schubert cycles and the Poincaré duality.
- Houghton, C. H. 2840: Direct decomposability of reduced free groups.
- Houh, Chong-shi. 2129: A note on Riemannian manifolds with almost tangent structures.
- Heuscholder, A. S. 2428: Moments and characteristic roots. II. 5371: Bigradients and the problem of Routh and Hurwitz. 6018: Some applications of the theory of norms. 7079: Norms and the localization of roots of matrices.
- Howard, H. C. 3104: Some oscillation criteria for general self-adjoint differential equations. 5471: (with Kelman, Robert B. and Marsh, Donald J.) Nonmonotonicity of solutions of linear differential equations occurring in the theory of urine formation.
- Howard, W. A. 6179: Functional interpretation of bar induction by bar recursion.
- Howie, J. M. 6388: Commutative semigroup amalgams.
- Howland, James S. 3352: A perturbation-theoretic approach to eigenfunction expansions. 4674: On the essential spectrum of Schrödinger operators with singular potentials. 5723: Perturbation of embedded eigenvalues by operators of finite rank.
- Heyland, Arnijet. 4927: Robustness of the Wilcoxon estimate of location against a certain dependence.
- Hoyle, M. H. 3678: The estimation of variances after using a gaussianizing transformation.
- Hrbáček, K. 1255: (with Vopěnka, P.) The consistency of some theorems on real numbers.
- Hromov, A. P. 5729: Generating elements of certain Volterra operators which are connected with third and fourth order differential operators.
- Hruslov, E. Ja. 6615: (with Suzikov, G. V.) An averaged boundary condition for a diffusion problem in a region with piecewise semipermeable boundary. 7138: (with Suzikov, G. V.) The passage of sound waves across thin channels in a reflecting layer.
- Hrustalev, M. M. 2061: Sufficient conditions for an absolute minimum.
- Hrustaleva, L. G. 2107: The  $Q$  pair and harmonic normalization of a congruence.
- Hrytun, V. G. 2927: Function classes quasianalytic with respect to an ordinary linear differential operator and their applications. 5523: Solutions of certain differential equations in classes of functions quasianalytic with respect to differential operators.
- Hsiang, W.-C. 2247: Correction to: "Higher obstructions to sectioning a special type of fibre bundle." 274: (with Farrell, F. T.) A geometric interpretation of the Künneth formula for algebraic  $K$ -theory. 4084: (with Garland, H.) A square integrability criterion for the cohomology of arithmetic groups.
- Hsiang, Wu-yi. 838: Remarks on closed minimal submanifolds in the standard Riemannian  $m$ -sphere.
- Hsieh, Po-fang. 1668: (with Shouse, Otis D.) Reduction of order of a system of linear nonhomogeneous ordinary differential equations.
- Hsieh Sheng-kang. 5170: Distribution of the triplet of almost prime numbers. 5171: On the representation of a large even number as a sum of a prime and the product of at most three primes.
- Hsiung, Chuan-chih. 3477: (with Liu, Jong-diing) The group of conformal transformations of a compact Riemannian manifold.
- Hsu, Chen-chi. 4999: A method of solution for higher approximation of boundary layer flows.
- Hsu Ch'eng-hao. 4174: Commutators in the symplectic groups.
- Hu, Tah-kai. 3957: Residually simple and characteristically simple universal algebras.
- Huang, A. B. 3757: A note on the paper "Evaluation of the integral  $\int_0^\infty u^m e^{-u^2 - (x/u)} du$  by the discrete ordinate method". 3756: (with Giddens, Don P.) A new table for a modified (half-range) Gauss-Hermite quadrature with an evaluation of the integral  $\int_0^\infty e^{-u^2 - (x/u)} du$ .
- Huang Cheng-chung. 5816: Isometric correspondence of Riemannian spaces of category  $n-2$ .
- Huang Zheng-zhong. See Huang Cheng-chung.
- Huard, P. 3838: (with Broise, P. and Sentenac, J.) ★Décomposition des programmes mathématiques.
- Hubbuck, J. R. 4905: Some results in the theory of  $H$ -spaces.
- Huber, Alfred. 450: Über Potentiale, welche auf vorgegebenen Mengen verschwinden.
- Huckemann, Friedrich. 5385: Decompositions of triply connected domains.
- Huffstutler, R. G. 4476: (with Stein, F. Max) The approximate solution of certain nonlinear differential equations.
- Hugenholtz, N. M. 772: On the factor type of equilibrium states in quantum statistical mechanics.
- Hughes, J. W. B. 2909: A theorem concerning partitions and its consequence in the theory of Lie algebras.
- Hu He-sheng. 853: A characterization of a projective flat space.
- Huitson, Alan. 7047: ★The analysis of variance.
- Hukuhara, Masuo. 1659: Kneser family and boundary value problems. 2092: Intégration des applications mesurables dont la valeur est un compact convexe.
- Hulanicki, A. 730: (with Phelps, R. R.) Some applications of tensor products of partially-ordered linear spaces.
- Hulme, Bernie L. 7099: Interpolation by Ritz approximation.
- Hungerford, Thomas W. 277: The free product of algebras. 1437:



- A characterization of the hyperhomology groups of the tensor product. 2744: On the structure of principal ideal rings.
- Hunt, G. E. 1143: The transport equation of radiative transfer with axial symmetry.
- Hunt, Richard A. 1634: (with Wheeden, Richard L.) On the boundary values of harmonic functions.
- Hunter, D. B. 4179: On a result in Young's quantitative substitutional analysis.
- Huppert, B. 302: ★Endliche Gruppen. I.
- Hussain, Taqdir. 4196: On a closed graph theorem for topological groups. 5335: Some remarks about real almost continuous functions.
- Husch, L. S. 5880: On collapsible ball pairs.
- Husemoller, Dale. 4821: ★Fibre bundles. See Manzur Husemoller.
- Hussain, S. Mansur. 136: (with Shafast, A.) On certain expressions involving  $p$ th roots of unity.
- Hutcherson, W. R. 2755: A note on a surface of order seventeen. 4706: A rational surface mapped from a plane containing an involution of period eleven. 2754: (with Frank, Stanley) Two points on a certain quartic surface are both perfect and imperfect.
- Huzil, Mituaki. 3716: On a simplified estimate of correlogram for a stationary non-Gaussian process.
- Hvostov, A. P. 672: Matrices of best approximations in Hilbert space.
- Hyman, D. M. 889: A generalization of the Borsuk-Whitehead-Hanner theorem. 4771: ANR divisors and absolute neighborhood contractibility. 4772: A category slightly larger than the metric and CW-categories.
- Hyvärinen, L. P. 6129: ★Information theory for systems engineers.
- Ibadov, R. I. 2564: On the history of trigonometrical tables.
- Ibarra, Oscar H. 5060: (with Gray, James N. and Harrison, Michael A.) Two-way pushdown automata.
- Ibragimov, I. A. 2296: The central limit theorem for sums of functions of independent variables and sums of type  $\sum f(2^k t)$ . 3679: Estimation of parameters of the spectral density of a stationary process by the method of maximum likelihood. 4872: The complete regularity of stationary processes. 6609: A theorem of Gabor Szegő.
- İçen, Orhan. See Gelfond, A. O., #4002; Jung, Heinrich W. E., #5137; Pólya, G., #1216 and Rademacher, Hans and Toeplitz, Otto, #5065.
- Ichihara, Yoshihiro. 3004: On the spherical derivative of functions regular or meromorphic in the unit disc.
- Ichijō, Yoshihiro. 5830: A note on general projective spaces of paths and tangent bundles. I.
- Ichijō, Yoshihiro. See Ichijō, Yoshihiro.
- Ichim, Ion. 6393: (with Isaac, George) Réunions pseudotopologiques de groupes.
- Idelson, A. V. 3908: Remarks on the calculi of constructive logic with subordinate variables and the axiom of complete induction.
- Idén, Oddvar. 2079: Free planes. II.
- Igari, Satoru. 700: On spectral synthesis.
- Iglehart, Donald L. 3632: Limit theorems for the multi-urn Ehrenfest model.
- Igl'kov, A. 7131: Axially symmetric flows with free boundary.
- Igliach, Rudolf. 3115: Explizite Berechnung der Lösung linearer Schwingungsgleichungen im Resonanz- und Ausnahmefall.
- Ignat'eva, A. V. 4478: (with Vostrecov, B. A.) The existence in the  $L_p$  metric of the best approximation of functions by sums of a finite number of plane waves of given directions.
- Ignat'eva, R. P. 303: Theorems on the imbedding of subgroups of a finite group.
- Igusa, Jun-ichi. 5217: Modular forms and projective invariants.
- Ikebe, Yasuhiko. 3266: A characterization of best Toeplitz coefficients approximations in function spaces. 6656: A characterization of Haar subspaces in  $C[a, b]$ .
- Ikeda, Mineo. 5436: (with Kayama, Tokuchi) On the generating function of spherical functions for unitary group.
- Ikeda, Sadao. 1034: (with Ogawa, Junjiro and Ogasawara, Motoyasu) On the null-distribution of the  $F$ -statistics for testing a "partial" null-hypothesis in a randomized partially balanced incomplete block design with  $m$  associate classes under the Neyman model.
- Ikigami, Gikō. 3958: On imbeddings and colorings of graphs. I, II.
- Ikeno, Kyuhei. 6657: (with Suzuki, Yoshiya) Some remarks of saturation problem in the local approximation.
- Ikramov, H. D. 7080: (with Petri, N. V.) The extremal properties of certain matrix norms.
- Il'in, V. L. 1570: Properties of systems of functions close to exponential functions.
- Il'in, V. P. 4602: A class of functions of several real variables. 1967: (with Besov, O. V.) A natural extension of the class of domains in imbedding theorems.
- Il'jasov, I. 176: The summation of composite functions of Euler's function.
- Il'jahn, A. G. 1718: Stability of the solutions of a certain system of linear differential equations with periodic coefficients.
- Illusie, Luc. 4822: Nombres de Chern et groupes finis.
- Imanaliyev, M. 1927: The behavior of solutions of integro-differential equations with a small parameter at the derivative. 1928: Periodic solutions of nonlinear systems of integro-differential equations with a small parameter. 5640: The behavior of solutions of systems of integro-differential equations with a small parameter at the derivatives. 1929: (with Bykov, Ja. V.) Periodic solutions of integro-differential equations. 5639: (with Bykov, Ja. V.) Periodic, almost periodic and bounded solutions of a certain class of integro-differential equations with a small parameter at the derivative.
- Imanaliyev, M. I. 4531: (with Belobrov, V. N.) A class of linear homogeneous integro-differential equations (i.d.e.) with small coefficients for the higher derivatives: The case of multiple roots of the characteristic equations.
- Imanishi, Hideki. 937: Unstable homotopy groups of classical groups (odd primary components).
- Imaz, Carlos. 541: Retarded harmonic oscillator.
- Imomnazarov, B. 5709: (with Sabirov, T. and Stecenko, V. Ja.) The spectral properties of certain classes of linear positive operators.
- Indoleanu, I. 1079: A class of formulas of quadrature on 5 equidistant nodes.
- Inin, O. T. 6781: The resolvents of an isometric operator with equal defect numbers.
- Inoue, Sakuji. 3403: On some integral equations with normal integral operators.
- Inoue, Tetsuo. 397: An application of the variational method to hyperbolic capacity.
- Inozemceva, I. N. 497: On the question of the existence and uniqueness of the solution of boundary value problems for ordinary differential equations.
- Inselberg, Alfred. 1676: Linear solvability and the Ricoati operator.
- Intrator, Jakub. 181: Partitions. I.
- Iohvidev, I. S. 4091: The ranks of Toeplitz matrices.
- Ion, Ion D. 242: (with Galbură, Gh.) On the localization of prime decompositions in the subcommutative case.
- Ionescu, D. V. 2442: Formules de cubature avec un nombre réduit de nœuds. I. 6028: Sur une classe de formules de cubature.
- Ionescu, G. D. 1109: Nomograms with superposed planes, using unmarked elements in one of the planes.
- Ionescu, Haralambie P. 1063: Approximate methods for the integration of some differential equations.
- Ionescu Tulcea, A. 6433: Liftings compatible with topologies.
- Ionescu Tulcea, Cassius. 5709: (with Plafker, Stephen M.) Dilatations et extensions scalaires sur les espaces de Banach.
- Iosida, K. See Yosida, Kōsaku.
- Iosifescu, M. 5918: La loi du logarithme itéré pour une classe de variables aléatoires dépendantes. 6991: Processus aléatoires à liaisons complètes purement discontinus. 7016: (with Mandl, P.) Application des systèmes à liaisons complètes à un problème de réglage.
- Jost, R. See Jost, René.
- van Iperen, H. 3253: A theorem about the determination of a certain best constant in the approximation by some linear operators.
- Ireland, C. T. 4903: (with Kullback, S.) Contingency tables with given marginals.
- Irwin, R. 5571: (with Peyerimhoff, A.) On the convexity theorem of M. Riesz.
- Irwin, Ronald Lee. 638: Correction: "Absolute summability factors. I".

- Isaacs, G. L. 6135: ★Real numbers: A development of the real numbers in an axiomatic set theory.
- Isaacs, I. M. 396: Finite groups with small character degrees and large prime divisors. 397: Two solvability theorems.
- Isac, George. 6393: (with Ichim, Ion) Réunions pseudotopologiques de groupes.
- Isaev, L. E. 2021: On the theory of eigenfunctions of operator colligations. 6791: A certain class of operators with spectrum concentrated at zero.
- Isahanov, R. S. 1629: A boundary value problem in the theory of analytic functions.
- Isakova, E. K. 6586: Long-time behavior of the solution of the Cauchy-Poisson problem.
- Isbell, John R. 269: Small subcategories and completeness. 2676: Squarelike sets, a conjecture. 2831: Remarks on decompositions of categories. 4141: Normal completions of categories.
- Iseki, Shō. 1332: A problem on partitions connected with Waring's problem.
- I Seung-yueng. 6118: The optimization of multidimensional non-stationary linear sample data systems.
- Ishiguro, Kazuo. 1836: Corrections to and remark on: "On the summability methods of divergent series". 3238: On the summability methods of Riemann's type.
- Ishihara, Shigeru. 3487: (with Yano, Kentaro) Normal circle bundles of complex hypersurfaces.
- Ishii, Goro. 3656: Minimax invariant prediction regions.
- Ishii, K. 4943: Mathematical programming and statistical theory of estimation.
- Ishimoto, Hirokazu. See Ishimoto, Hiroyasu.
- Ishimoto, Hiroyasu. 2235: On the imbedding of an  $n$ -dimensional closed manifold into an  $(n+1)$ -dimensional simply connected closed manifold.
- Iskenderov, A. 720: Singular solutions of a certain class of nonlinear integro-differential equations. 5651: The existence of singular solutions of a certain class of integro-differential equations. 5652: (with Bykov, Ja. V.) Singular solutions of a certain class of integro-differential equations.
- Iskenderov, A. D. 1768: (with Budak, B. M.) A class of inverse boundary value problems with unknown coefficients.
- Ismagilov, R. S. 341: Linear representations of the group  $SL(2, R)$ . 5682:  $n$ -dimensional diameters of compacta in a Hilbert space.
- Ispas, C. I. 2122: Simply harmonic Riemannian extensions  $\mathcal{A}_2$  and locally euclidean spaces  $A_2$ . 4761: Die Gleichwertigkeit der Bianchischen und der Veblenschen Identitäten in den Finalerschen Räumen.
- Israilov, M. I. 167: Certain Dirichlet series with multiplicative coefficients. 3270: A certain orthonormal system which is complete in the space  $L_2[0, 1]$ .
- Istrăţescu, I. 2016: (with Istrăţescu, V.) On normaloid operators. 4379: (with Istrăţescu, V.) On some classes of operators. II.
- Istrăţescu, Vasile. 4566: On Banach spaces with a basis. III. 2016: (with Istrăţescu, I.) On normaloid operators. 4379: (with Istrăţescu, I.) On some classes of operators. II.
- Itano, Mitsuyuki. 6750: On fixations and reciprocal images of currents.
- Itard, Jean. 5079: Pierre Sergescu, historien des mathématiques.
- Itô, Kiyosi. 2306: The canonical modification of stochastic processes.
- Itô, Masayuki. 1639: On kernels of invariant functional spaces. 3034: Note sur contractions et principes du maximum. 3035: Le principe de domination de Ninomiya pour les potentiels pris par rapport au noyau invariable de composition. 3036: On the latest results concerning Dirichlet spaces. 3037: Note sur les espaces spéciaux de Dirichlet. 3038: A note on extended regular functional spaces.
- Ito, Noboru. 296: On transitive permutation groups of Fermat prime degree.
- Ito, Toyokichi. 731: On some properties of a vector lattice.
- Itykson, C. 5421: (with Bros, J. and Pham, F.) Représentations intégrales de fonctions analytiques et formule de Jost-Lehmann-Dyson.
- Ivanov, A. V. 1797: The global solvability of the first boundary value problem for a quasilinear parabolic equation.
- Ivanov, I. S. 6339: Free  $T$ -sums of multioperator sfields.
- Ivanov, N. A. 1535: On a theorem of Carathéodory.
- Ivanov, V. K. 6706: Fredholm integral equations of the first kind.
- Ivanov, V. N. 3166: ★The abstract Cauchy problem and the perturbation theory of closed operators.
- Ivanov, V. V. 6710: (with Arsenin, V. Ja.) The solution of certain convolution type integral equations of the first kind by the method of regularization.
- Ivanova, I. L. 972: Quasianalytic random processes.
- Ivanova, T. V. 4238: (with Verner, A. L.) The area of irregular surfaces in spaces of constant curvature.
- Ivakev-Musatov, O. S. 3273:  $M$ -sets and  $h$ -measures.
- Ivasilen, S. D. 587: (with Lavrenčuk, V. P.) Solvability of the Cauchy problem and of some boundary value problems for general parabolic systems in the class of increasing functions.
- Ivković, Z. A. 4863: A sufficient condition for linear regularity of stochastic processes.
- Ivlev, E. T. 4726: Generalized equiparametric varieties in a multidimensional projective space. 6849: The multidimensional surface in projective space.
- Ivočkina, N. M. 4406: (with Oskolkov, A. P.) Nonlocal estimates of the first derivatives of solutions of the Dirichlet problem for nonuniformly elliptic quasilinear equations.
- Iwahori, Nagayoshi. 4262: (with Sugiyara, Mitsuo) A duality theorem for homogeneous manifolds of compact Lie groups.
- Iwakami, Tatsuo. 1414: On the centers of algebras over commutative rings.
- Iwano, Masahiro. 1675: A method to construct analytic expressions for bounded solutions of non-linear ordinary differential equations with an irregular singular point.
- Iwasaki, Nobuhisa. 3190: On the principle of limiting amplitude. 5518: On the principle of limiting amplitude.
- Iwasawa, Kenji H. 5183: On explicit formulas for the norm residue symbol.
- Iyehen, Sunday O. 1947: Some remarks on countably barrelled and countably quasisbarrelled spaces. 1948: On certain classes of linear topological spaces.
- Izjumeva, D. V. 3128: (with Kiguradze, I. T.) Some remarks on the solutions of the equation  $u'' + a(t)f(u) = 0$ .
- Izman, M. S. 5497: Strong instability and sets of attraction in dynamical systems.
- Izobov, N. A. 4339: The set of lower exponents of positive measure.
- Izumi, Masako. 6070: (with Izumi, Shin-ichi) Fourier series of functions of bounded variation.
- Izumi, Shin-ichi. 6070: (with Izumi, Masako) Fourier series of functions of bounded variation.
- Jablokov, D. M. 850: Covariant differentiation and affine connection in a space of pairs of linear elements. 3475: A general affine connection in a space of pairs of linear elements. 4735: Some applications of Lie differentiation in a space of pairs of linear elements. 4762: Euclidean connections in a space of pairs of linear elements. 5831: The Lie derivative and its application to the determination of the extremals of a space of pairs of linear elements.
- Jablonskij, A. See Proceedings of the Steklov Institute of Mathematics, #6143.
- Jablonskij, A. I. 505: (with Bogoslovskij, B. P.) Systems of differential equations with algebraic moving singular points. 4305: (with Kondratenja, S. G.) Mobile singularities of systems of two differential equations.
- Jačauskas, I. 1172: A game of pursuit in the half-plane.
- Jačauskas, I. P. See Jačauskas, I.
- Jackson, Lloyd K. 1702: Disconjugacy conditions for linear third-order differential equations. 5462: Subfunctions and second-order ordinary differential inequalities.
- Jackson, T. H. 4012: Small positive values of indefinite binary quadratic forms.
- Jacobinski, H. 5250: Über die Geschlechter von Gittern über Ordnungen.
- Jacobowitz, Ronald. 2723: Gauss sums and the local classification of hermitian forms.
- Jacobs, Konrad. 1556: Almost periodic sources and channels. 3548:

- Einige Grundbegriffe der topologischen Dynamik. 5363: On Poincaré's recurrence theorem.
- Jacobs, Marc Q. 3163: Attainable sets in systems with unbounded controls. 5696: (with Falb, Peter L.) On differentials in locally convex spaces.
- Jacobson, R. A. 1472: Correction to a note on abelian group axioms.
- Jacques, Alain. 5285: (with Lenormand, Claude; Lentin, André and Perrot, Jean-François) Un résultat extrémal en théorie des permutations.
- Jadrenko, M. I. 5078: (with Daniljuk, I. I.; Koroljuk, V. S.; Mitropol'skii, Ju. O. and Skorohod, A. V.) Iosif Il'in Gihman: On the occasion of his 50th birthday.
- Jafarov, Š. A. 2130: Invariant criteria for Weyl's Liouville spaces  $W_2$  and  $\bar{W}_2$  which admit homogeneous linear integrals of geodesics.
- Jagers, P. 5947: Age-dependent branching processes allowing immigration.
- Jaglom, A. M. 4844: (with Jaglom, I. M.) ★Probability and information. 7211: (with Jaglom, I. M.) ★Wahrscheinlichkeit und Information.
- Jaglom, I. M. 818: On the theory of circular Lie transformations. 4844: (with Jaglom, A. M.) ★Probability and information. 7211: (with Jaglom, A. M.) ★Wahrscheinlichkeit und Information.
- Jaglimuradov, S. 2932: (with Areshkin, G. Ja.) On convergence of absolutely continuous functions and their derivatives. II.
- Jain, J. L. 4895: (with Varma, R. S.) Queueing models.
- Jain, M. K. 3786: (with Sharma, K. D.) Cubature method for the numerical solution of the characteristic initial value problem  $u_{xy} = f(x, y, u, u_x, u_y)$ .
- Jain, Naresh. 3648: (with Pruitt, William E.) The correct measure function for the graph of a transient stable process.
- Jain, R. N. 6194: Note on a formula of Gould.
- Jain, S. K. 4120: Rings with constraints.
- Jain, U. C. 3059: On an integral involving the  $H$ -function.
- Jajte, R. 4230: On the probability measures in Hilbert spaces. 6427: On stable distributions in Hilbert space. 6971: On convergence of infinitely divisible distributions in a Hilbert space.
- Jakovlev, A. V. 1350: (with Tvaradze, S. V.) Auxiliary problems in the theory of the imbedding of fields.
- Jakovlev, G. N. 618: The first boundary value problem for a certain elliptic equation which degenerates on the boundary of the domain. 614: A certain problem of A. V. Bicaдзе for degenerate elliptic equations.
- Jakovlev, M. K. 1719: On A. M. Ljapunov's second method.
- Jakovleva, G. F. 1930: Construction of a solution of a certain class of integro-differential equations with retarded argument. 4538: A certain boundary value problem for an integro-differential equation with lag.
- Jakubík, Ján. 1283: Higher degrees of distributivity in lattices and lattice-ordered groups.
- Jakubović, V. A. 6119: Impulse control systems with width modulation.
- Jakubowicz, Antoni. 2113: Certain geometric objects equivalent to affiners. 3081: Certain simplifications in solving a linear ordinary differential equation with constant coefficients by means of J. Mikusiński's operational method with several different initial conditions.
- Jakubowski, Z. J. 2968: Les fonctions univalentes,  $p$ -symétriques et bornées dans le cercle unité.
- Jakupov, L. S. 6518: Solutions in closed form of some of Hill's equations.
- Jakulev, I. K. See Jaušev, I. K.
- James, A. T. 7039: Calculation of zonal polynomial coefficients by use of the Laplace-Beltrami operator.
- James, D. G. 6217: Transitivity in integral symplectic forms.
- James, Glenn. See James & James mathematics dictionary, #11.
- James, Ralph L. 3794: The numerical solution of singular Volterra integral equations.
- James, Robert C. See James & James mathematics dictionary, #11.
- Jamnik, Rajko. 7012: On the theory of queues.
- Janenko, N. N. 7099: The method of weak approximation for an arbitrary splitting. 2496: (with Jaušev, I. K.) On an absolutely stable scheme for integration of equations of hydrodynamics.
- Janić, Radovan R. 5763: A generalization of a problem of L. Carltz. 1831: (with Vasić, P. M.) Sur une équation fonctionnelle où interviennent les déterminants. 5560: (with Vasić, Petar M.) Sur une équation fonctionnelle linéaire.
- Jänich, Klaus. 2261: On the classification of  $O(n)$ -manifolds. 4835: ★Differenzierbare  $G$ -Mannigfaltigkeiten. 6954: Charakterisierung der Signatur von Mannigfaltigkeiten durch eine Additivitätseigenschaft.
- Janko, Zvonimir. 5284: A characterization of the Mathieu simple groups. I, II.
- Jankov, V. A. 31: On an extension of the intuitionistic propositional calculus to the classical one and of the minimal one to the intuitionistic one.
- Janos, Ludvik. 6907: Topological homotheties on compact metrizable spaces.
- Janovakaja, E. B. 3844: Antagonistic games played in function spaces.
- Jans, J. P. 246: A note on injectives.
- Jansson, Birger. 1259: (with Borenus, Gustaf and Danielson, Sture) Number of ways for choosing an alternative. A combinatorial problem related to Eulerian numbers.
- Janulaukas, A. I. 599: Some cases of overdetermination of a problem on the oblique derivative. 1801: The behaviour in the neighborhood of the hypersurface of degeneration of the solutions of an elliptic equation the order of which degenerates.
- Jarcev, Ju. P. 4383: The method of collocation by lines.
- Jarmolenko, V. A. 5773: Partial order on a set of plane figures with a binary folding relation. 5774: Finite geometric lattices in a set of plane figures with a binary folding relation.
- Jarratt, P. 2431: A numerical method for determining points of inflexion. 1073: (with Mack, C.) A least squares method for Laplace's equation with Dirichlet boundary conditions. 1072: (with Garside, G. R. and Mack, C.) A new method for solving polynomial equations.
- Jasek, B. 1832: Complex series and connected sets.
- Jasilionis, K. Ju. 2525: The existence of solutions of complex problems of mathematical programming. 2526: The connection of complex problems of mathematical programming with problems of quadratic programming.
- Jaušev, I. K. 2496: (with Janenko, N. N.) On an absolutely stable scheme for integration of equations of hydrodynamics.
- Jaworowski, Jan W. 2232: Coinciding directions for imbeddings of spaces.
- Jean, M. 6575: Sur les équations aux variations.
- Jech, T. 56: On cardinals and their successors. 3918: (with Sochor, A.) Applications of the  $\Theta$ -model.
- Jeger, M. 809: Der Aufbau der Kongruenzgruppe im Raum durch Spiegelungen. 5764: Der Aufbau der Kongruenzgruppe im Raum durch Spiegelungen. II.
- Jelinková, Věra. 6149: Infinitesimal value in the foundations of mathematical analysis in the 17th and 18th centuries.
- Jen Fu-yao. 398: Extensions of some theorems of Robinson and Goluzin.
- Jenkins, Gwilym M. 6000: (with Watts, Donald G.) ★Spectral analysis and its applications.
- Jenkins, Howard. 2055: (with Serrin, James) Variational problems of minimal surface type. III. The Dirichlet problem with infinite data.
- Jenkins, James A. 401: On an inequality considered by Robertson.
- Jenks, Richard D. 6529: Homogeneous multidimensional differential systems for mathematical models.
- Jennings, Walter. 6007: A modified Newton-Raphson iteration.
- Jensen, J. A. 5671: Note on semi-continuous functions. 3533: (with Anderson, Douglas R.) Semi-continuity on topological spaces.
- Jensen, R. B. 53: Concrete models of set theory.
- Jerome, Joseph W. 4484: Asymptotic estimates of the  $\mathcal{L}_2$   $n$ -width.
- Jerrard, Richard. 5884: A regular homotopy of  $S^2$ .
- Jessen, Berge. 2083: Orthogonal icosahedra.
- Jewell, William S. 7013: A simple proof of:  $L = \lambda W$ .
- Jez, C. F. 1147: A criticism of Kanner's proof that no solution of  $G_{2n} = 0$  can be embedded in a flat five-space.
- Jindia, R. K. 5433: (with Sharma, Bhagirath Lal) Some definite integrals involving Legendre and generalised function of two variables.
- Jogdeo, Kumar. 5988: Asymptotic normality in nonparametric



- methods. 5925: (with Dharmadhikari, S. W. and Fabian, V.) Bounds on the moments of martingales.
- John, Fritz. 5241: A note on my paper: "On symmetric matrices whose eigenvalues satisfy linear inequalities".
- Johnsen, E. C. 5107: Special abelian group difference sets. 1417: (with Outcalt, D. L. and Yaqub, Adil) An elementary commutativity theorem for rings.
- Johnson, Arnold Arvid. 1948: Integral representations of hermitian forms over local fields.
- Johnson, B. E. 5613: The Šilov boundary of  $M(G)$ .
- Johnson, Gordon G. 6416: Concerning commuting functions.
- Johnson, Guy, Jr. 5412: Harmonic functions on the unit disc. I, II.
- Johnson, H. H. 6590: The non-invariance of hyperbolicity in partial differential equations.
- Johnson, L. W. 3734: (with Scholz, D. R.) On Steffensen's method.
- Johnson, N. L. 2282: Repetitions. *See also* Tables of the incomplete beta-function, #2402.
- Johnson, R. E. 2964: Free products of ordered semigroups. 1410: (with Levy, L. S.) Regular elements in semiprime rings.
- Johnson, Richard A. 5978: (with Bhattacharyya, G. K.) Approach to degeneracy and the efficiency of some multivariate tests. 5987: (with Bhattacharyya, G. K.) Nonparametric tests for shift at an unknown time point.
- Johnstone, Henry W., Jr. 49: An inductive decision-procedure for the monadic predicate calculus.
- Johnstone, W. R. 6328: Generalized Hilbert functions and resolutions associated with maximal one-sided ideals.
- Jonah, David W. 5267: ★ Cohomology of coalgebras.
- Jones, A. J. 186: Sums of three roots of unity.
- Jones, A. L. 3967: An extension of an inequality involving modified Bessel functions.
- Jones, Arthur R. 3116: Characteristic multipliers and stationary integrals.
- Jones, G. Stephen. 1671: Hereditary dependence in dynamics. 1739: Hereditary structure in differential equations.
- Jones, M. F. *See* Sexton, Charles R., #1300.
- Jones, Richard H. 1050: (with Davis, Herbert T.) Estimation of the innovation variance of a stationary time series.
- Jones, S. E. 582: (with Ames, W. F.) Integrated Lagrange expansions for a Monge-Ampère equation. 5446: (with Ames, W. F.) Similarity variables and first integrals of ordinary differential equations.
- Jones, William B. 4592: A locally convex topology for spaces of holomorphic functions. 6446: (with Thron, W. J.) Convergence of continued fractions.
- Jones, Dumitru V. *See* Ionescu, D. V.
- de Jong, Frits J. 2514: ★ Dimensional analysis for economists.
- Jónsson, Bjarni. 2589: (with Olin, Philip) Almost direct products and saturation.
- Joos, H. 2900: (with Schrader, R.) On the primitive characters of the Poincaré group.
- Jooste, T. de W. 2817: Prime ideals and nil radicals in ringoids.
- Jordan, James H. 1316: The distribution of  $k$ th power residues and non-residues. 6235: The number of unrestricted  $k$ th power residues.
- Jordan, T. L. 4947: Experiments on error growth associated with some linear least-squares procedures.
- Jerna, S. 3068: On the determination of the general term in Green-type expansions.
- Jost, Res. 6090: ★ The general theory of quantized fields.
- Juan, Henri. 5818: Interprétation  $m$ -dimensionnelle de l'"équation d'Einstein"  $n$ -dimensionnelle.
- Juan, Ricardo San. *See* San Juan, Ricardo.
- Juberev, N. N. 631: The preservation of the sign of the Green's function of a periodic boundary value problem for a second order difference equation.
- Judin, A. A. 5175: On the number of integer points in the displaced circles.
- Judin, M. D. 2290: The limit distributions of sums of dependent variables.
- Juhanonov, N. 6714: Systems of two real singular integral equations with difference kernels on a line and a halfline.
- Juhász, I. 4769: (with Hajnal, A.) Discrete subspaces of topological spaces.
- Julius, R. S. 2418: (with Charmonman, S.) Explicit inverses and condition numbers of certain circulants.
- Juneja, O. P. 416: On the order and lower order of entire Dirichlet series. 1611: (with Srivastava, R. S. L.) On proximate type of entire functions.
- Jung, Calvin F. K. 4789: Mappings on compact metric spaces.
- Jung, H. A. 3947: Zusammenzüge und Unterteilungen von Graphen.
- Jung, Heinrich W. E. 5137: An introduction to the theory of numbers.
- Jurčák, Gerald. 2211: Periodic maps via equicontinuity.
- Jurčák, S. 3806: (with Zaril, Ju. I.) The solvability of a certain nonlinear boundary value problem.
- Jurčák, N. I. 6610: The Goursat problem for a second order hyperbolic equation of a special form. 5536: (with Briš, N. I.) Certain new boundary value problems for a certain kind of partial differential equations. I.
- Jurie, Pierre-François. 3975: Notion de quasi-somme amalgamée: Premières applications à l'algèbre booléenne polyadique.
- Jurviński, S. A. 2942: Metric automorphisms with a simple spectrum. 4198: Non-ergodicity of the automorphisms of a connected locally compact group.
- Kaashoek, M. A. 2025: On the Riesz set of a linear operator. 3358: (with West, T. T.) Locally compact monothetic semi-algebras.
- Kaballa, V. P. 4434: Ill-posed problems in Hilbert space for linear equations involving unbounded linear operators.
- Kabe, D. G. 4910: On the distribution of the complex analog of Rao's  $U$  statistic. 4911: On the distributions of direction and collinearity factors in discriminant analysis. 5995: Some distribution problems of order statistics from exponential and power function distributions.
- Kac, B. P. 1168: (with Gerštein, V. M.; Levin, A. Ju. and Mitjagin, B. S.) The solution of a game on graphs.
- Kac, G. I. 4639: Group extensions which are ring groups.
- Kac, I. S. 3087: A remark on the article: "The existence of spectral functions of generalized second order differential systems with boundary conditions at the singular end". 5456: The growth of the spectral functions of generalized second order boundary value problems with the boundary condition at a regular end point.
- Kac, M. *See* Stochastic differential equations, #7011.
- Kacaran, T. K. 4333: (with Perov, A. I.) Theorems of Favard and Bohr-Neugebauer for multidimensional differential equations.
- Kacki, E. 1008: (with Krysiński, W.) Die Parameterschätzung einer Mischung von zwei Laplaceschen Verteilungen (im allgemeinen Fall).
- Kacnel'son, V. E. 381: Certain operators acting on spaces generated by the functions  $1/(t-z_0)$ .
- Kačurovskii, R. I. 2044: Approximate methods for the solution of nonlinear operator equations. 3945: Nonlinear monotone operators in Banach spaces.
- Kaczynski, T. J. 3990: Note on a problem of Alan Sutcliffe.
- Kadane, Joseph B. 1157: Discrete search and the Neyman-Pearson lemma.
- Kadison, Richard V. 5014: Lectures on operator algebras. 6766: Strong continuity of operator functions. *See also* Davies, E. B., #6764.
- Kadlec, Jan. 4396: Strong maximum principle for weak solutions of nonlinear parabolic differential inequalities. *See also* Kufner, Alois and Nečas, Jindřich, #2567.
- Kadner, Horst. 2443: Untersuchungen zu den Mittelwertformeln nach Maclaurin und Newton-Cotes.
- Kagan, A. M. *See* Wilks, Samuel S., #2345.
- Kagan, V. M. 4392: Boundedness of pseudodifferential operators in  $L_p$ .
- Kagiwada, H. H. 1106: (with Kalaba, R. E.) An initial-value method suitable for the computation of certain Fredholm resolvents. 6100: (with Bellman, R. and Kalaba, R.) Invariant imbedding and non-variational principles in analytical dynamics. 3871: (with Bellman, R.; Detchmendy, D. and Kalaba, R.) On the identification of systems and the unscrambling of data. III. One-dimensional wave and diffusion processes.
- Kahan, Théo. 1127: ★ Theory of groups in classical and quantum physics. Vol. I. Mathematical structures and the foundations of quantum theory.
- Kahane, Jean-Pierre. 4494: Sur les réarrangements des suites de

- coefficients de Fourier-Lebesgue. 4505: Sur les ensembles ultrakroneckeriens. 1998: (with Zelazko, W.) A characterization of maximal ideals in commutative Banach algebras.
- Kahn, Peter J. 3589: Chern numbers and oriented homotopy type.
- Kaiser, Hans. 457: Die erste und zweite Randwertaufgabe der Potentialtheorie für Bereiche, die von Sinusspiralen berandet sind. 1574: Beiträge zur Theorie der Löwnerschen Differentialgleichung.
- Kajiwar, Joji. 5424: On weak Poincaré problem. 5425: (with Yoshida, Mamoru) Note on Cauchy-Riemann equation.
- Kakehashi, Tetsujiro. 2960: (with Matsumura, Yoshihimi) Note on the coefficients of Taylor expansion.
- Kakeshita, Shin-ichi. 1042: (with Yanagawa, Takashi) Estimates for scale based on  $U$ -statistics.
- Kakičev, V. A. 1044: Boundary value problems of linear conjugacy for functions holomorphic in bicylindrical domains. 1045: Boundary value problems of linear conjugacy for functions holomorphic in bicylindrical regions.
- Kakišev, K. 3298: Asymptotic estimates of the solutions of boundary value problems for nonlinear integro-differential equations with a small parameter at the highest derivative, when the degenerate equation is located on the spectrum.
- Kakita, Takao. 6626: A characterization of hyperbolic convolution operators.
- Kakutani, Shizuo. 1734: A proof of Bebutov's theorem. 2943: Ergodic theory of shift transformations.
- Kalaba, R. E. 1106: (with Kagiwada, H. H.) An initial-value method suitable for the computation of certain Fredholm resolvents. 6100: (with Bellman, R. and Kagiwada, H.) Invariant imbedding and non-variational principles in analytical dynamics. 3871: (with Bellman, R.; Detchmندی, D. and Kagiwada, H.) On the identification of systems and the unscrambling of data. III: One-dimensional wave and diffusion processes.
- Kalaida, A. F. See Kalaida, O. F.
- Kalaida, O. F. 798: (with Sereda, V. Ju.) A certain method for solving second order linear integral equations. 3289: (with Sereda, V. Ju.) A certain method for solving linear integral equations of the second kind.
- Kalašnikov, M. D. 668: The convergence of sequences of polynomials of best mean square approximation for continuous functions.
- Kalshchek, J. G. 3934: (with Stanton, R. G.) On the maximal triangle-free edge-chromatic graphs in three colors. 6192: (with Stanton, R. G.) Covering problems for dichotomized matchings.
- Kalecki, M. 2700: On the sum  $\sum_{n \leq x} (f(x/n))$ .
- Kalinichenko, D. F. 795: The function space  $W_{p, \alpha_1, \dots, \alpha_s}^r(T, \Omega)$ , and completely continuous operators in weight spaces.
- Kalinowski, Jerzy. 6164: La norme, l'action et la théorie des propositions normatives.
- Kaljaev, A. V. 1050: Numerical methods of Stieltjes integration by digital integrators.
- Kalla, S. L. 5633: Dual integral equations.
- Kallaher, Michael J. 3438: Moufang Veblen-Wedderburn systems.
- Kallenberg, G. W. M. 6821: Straight paths in affine plane kinematics.
- Kalyaev, A. V. See Kaljaev, A. V.
- Kamae, T. 3943: A graph-theoretical proof of an adjacency property of major submatrices.
- Kamber, Franz. 4832: On the characteristic homomorphism of a discrete uniform subgroup of a nilpotent Lie group.
- Kamenev, I. V. 3105: Oscillatoriness and boundedness of solutions of a nonlinear second order equation with multiplicatively separated right hand side.
- Kameswara Rao, G. V. N. 489: On the solution of two systems of differential equations.
- Kamilov, M. H. 170: The mean value of a double sum.
- Kamke, Erich. See Walter, Wolfgang, #2571.
- Kammerer, William J. 790: (with Hawkins, John B.) A class of linear transformations which can be written as the product of projections.
- Kampé de Fériet, Joseph. 1191: (with Forte, Bruno) Information et probabilité.
- Kamthan, Pawan Kumar. 1604: On the lower order (R) of an entire function represented by Dirichlet series. 1605: On entire functions of order (R) zero represented by Dirichlet series. II. 1606: On entire functions represented by Dirichlet series. IV. 2991: Mean values of entire functions. III. 2992: On the mean values of an entire function. IV. 6461: (with Dash, P. C.) On the derivatives of an entire function.
- Kamynin, L. I. 1751: The Ljapunov-Gjunter theorems for special thermal potentials. 4425: On the smoothness of thermal potentials. 4426: On the smoothness of thermal potentials. V. Thermal potentials  $U$ ,  $V$  and  $W$  on surfaces of type  $J_{2m+1, 1, 1, 1}^{1, \alpha, \alpha/2, \alpha/2}$  and  $J_{2m+1, 1, 1, 1}^{1, 1, \alpha/2, \alpha/2}$ . 5537: On the smoothness of thermal potentials. V. Thermal potentials  $U$ ,  $V$  and  $W$  on surfaces of types  $J_{2m+1, 1, 1, 1}^{1, \alpha, \alpha/2, \alpha/2}$  and  $J_{2m+1, 1, 1, 1}^{1, 1, \alpha/2, \alpha/2}$ . II.
- Kamyrov, T. 5663: The approximate solution of certain boundary-value problems for integro-differential equations. 5664: Approximate solution of the Goursat problem for a nonlinear integro-differential equation. 5665: The approximate solution of Barbalin type integro-differential equations. 5666: On the approximate solution of certain problems for ordinary nonlinear integro-differential equations.
- Kan, E. M. 581: The conservation laws for quasilinear systems of four partial differential equations of the first order.
- Kanazawa, Mitsuyo. 3693: (with Okamoto, Masashi) Minimization of eigenvalues of a matrix and optimality of principal components.
- Kandelaki, N. P. 4558: (with Vahanija, N. N.) Estimate of the speed of convergence in the multidimensional central limit theorem.
- Kandil', M. A. 2955: The construction of B. M. Levitan's polynomials for abstract functions.
- Kanel', Ja. I. 3203: A model system of equations for the one-dimensional motion of a gas.
- Kanemaru, T. 1651: (with Tsurumi, K.) Boundary properties of analytic functions.
- Kaneyuki, Seiji. 3056: On the automorphism groups of homogeneous bounded domains.
- Kanitani, Jōyō. 2108: Sur les hypersurfaces à  $2r-1$  dimensions admettant des espaces générateurs à  $r-1$  dimensions.
- Kanluth, Eberhard. 2904: Über Charaktere semi-direkter Produkte direkter Gruppen.
- Kano, Tadayoshi. 588: On the Cauchy problem for the equation with multiple characteristic roots.
- Kanold, Hans-Joachim. 87: Über Stirlingsche Zahlen 2. Art. 88: Über eine asymptotische Abschätzung bei Stirlingschen Zahlen 2. Art. 5168: Über Primzahlen in arithmetischen Folgen. II.
- Kansal, I. D. 2146: (with Pandey, S. N.) Spherically symmetric space-time of class one and electromagnetism.
- Kantor, B. E. 2142: A certain meaning for the integral of the mean curvature of a smooth surface of bounded distortion.
- Kantor, I. L. 1418: Infinite dimensional simple graded Lie algebras.
- Kantorovitz, Shmuel. 2033: The  $C^*$ -classification of certain operators in  $L_p$ .
- Kao Feng-hsin. 5491: Stability of solutions of systems of differential equations with respect to certain variables.
- Kapilevič, M. B. 3190: Basis expansions of solutions of singular Cauchy problems.
- Kaplan, A. A. 5032: Certain properties of the operator of descent of coordinates.
- Kaplan, Wilfred. 4304: Analytic ordinary differential equations in the large.
- Kapoor, S. F. 5115: (with Chartrand, Gary and Kronk, Hudson V.) A sufficient condition for  $n$ -connectedness of graphs. 5117: (with Kronk, H. V. and Liek, D. R.) On detours in graphs.
- Karacuba, A. A. 5188: Sums of characters, and primitive roots, in finite fields.
- Karadžić, L. 676: Quelques inégalités trigonométriques.
- Karaganis, Jerome J. 6265: On the cube of a graph.
- Karasev, G. A. 313: The Frattini subgroup of an  $n$ -nilpotent group.
- Karasev, I. M. 1879: On the theory of generalizing Legendre's integral transform.
- Karher, Hermann. 2131: Schnittpunkt und konvexe Mengen in vollständigen Riemannschen Mannigfaltigkeiten. 2132: Umkreise und Inkreise konvexer Kurven in der sphärischen und der hyperbolischen Geometrie.
- Kardas, A. I. 3044: (with Kostov'ski, O. M. and Čulik, I. I.) Newton majorants and diagrams for functions of several variables.
- Kargapolev, M. I. 19: (with Aleksandrov, P. S.; Eršov, Ju. L.; Kur'min,

- E. N.; Smirnov, D. M.; Taĭmanov, A. D. and Širšov, A. I.) Anatolii Ivanovič Maľcev: Obituary.
- Karim, Abbas I. Abdel. See Abdel Karim, Abbas I.
- Karimov, D. H. 3221: (with Kasimova, M.) A mixed problem for a linear equation of the fourth order, degenerating on the boundary of the domain.
- Karimov, S. 3226: Periodic solutions of nonlinear systems of difference equations in two variables.
- Karklin', I. P. See Kärkliņa, I.
- Kärkliņa, I. 562: (with Reiziņš, L.) The topological equivalence of systems of total differential equations in neighborhoods of closed trajectories.
- Karlin, Samuel. 5667: ★Total positivity. Vol. I. 389: (with McGregor, James) Embedding iterates of analytic functions with two fixed points into continuous groups. 1854: (with Ziegler, Zvi) Chebyshevian spline functions.
- Karp, Richard M. 6008: (with Miller, Raymond E.) Properties of a model for parallel computations: Determinacy, termination, queueing.
- Karpelevič, F. I. 6976: The geometry of geodesics and the eigenfunctions of the Beltrami-Laplace operator on symmetric spaces.
- Karpenko, L. N. 6711: Approximate solution of a singular integral equation by means of Jacobi polynomials.
- Karplus, Walter J. 2459: (with Girerd, Jean) ★Traitement des équations différentielles sur calculateurs électroniques.
- Karpova, L. M. 6409: (with Rozenfel'd, B. A.) Flag groups and contraction of Lie groups.
- Karremen, Herman F. See Stochastic optimization and control, #7198.
- Kárieszi, Ferenc. 3450: A geometric extremal problem.
- Karissos, A. G. 3106: On the relation between boundedness and oscillation of differential equations of second order.
- Karube, Takashi. 5944: On a kind of uniqueness of set-entourage uniformities for function spaces.
- Kasahara, Isamu. 5739: (with Nakamura, Masahiro) A minimal property for an operator of Hilbert-Schmidt class.
- Kasahara, Shouro. 5745: A remark on the contraction principle.
- Kasami, T. 5051: (with Lin, S. and Peterson, W. W.) Some results on cyclic codes which are invariant under the affine group and their applications.
- Kashiwabara, Shōbin. 6960: Riemannian manifolds with dense orbits under Lie groups of motions.
- Kasimova, M. 3221: (with Karimov, D. H.) A mixed problem for a linear equation of the fourth order, degenerating on the boundary of the domain.
- Kas'janjuk, S. A. 2977: (with Finogenova, V. G.) The ranges of values of typically real functions with fixed coefficients and their coefficient regions.
- Kastler, D. 5705: Topics in the algebraic approach to field theory. 4630: (with Doplicher, S.) Ergodic states in a non-commutative ergodic theory.
- Kaśu, A. I. 2799: Quasi-tertiary ideals.
- Kasymkulov, A. 5030: (with Černov, Ju. P.) Determination of the global minimum in allocation problems with nonlinear target function.
- Kasymova, S. S. 2071: Euclidean spaces over the algebra of real matrices. 2070: (with Ešova-Guseva, L. M. and Zablockih, N. D.) Dimensions of manifolds of planar generating Hermitian quadrics and null-planes of Hermitian null-systems in spaces over algebras.
- Kátai, Imre. 2609: (with Corrádi, Károly) On the theory of quadratic residues.
- Katětov, M. 4502: A theorem on mappings.
- Kathal, P. D. 688: (with Sahney, B. N.) Summability ( $L$ ) of the first differentiated Fourier series.
- Kato, Junji. 1740: On the existence of a solution approaching zero for functional differential equations. 1720: (with Strauss, Aaron) On the global existence of solutions and Liapunov functions. 3118: (with Yoshizawa, Taro) Asymptotic behavior of solutions near integral manifolds.
- Kato, Mitsuyoshi. 4004: Regular neighborhoods are not topologically invariant.
- Kato, Tosiō. 1820: Nonlinear semigroups and evolution equations.
- Kato, Toyonori. 247: Self-injective rings. 4123: Characterizations of self-injective rings.
- Katō, Yoshio. 6606: Sur les systèmes différentiels hypoelliptiques à coefficients variables. 6609: Note on hypoellipticity of a first order linear partial differential operator.
- Katok, A. B. 4644: (with Foias, C.) Multiplicative operator functions of a metric automorphism. See also Moser, Jürgen, #4382.
- Katz, Melvin. 3633: A note on the weak law of large numbers. 5916: (with Binmore, K. G.) A note on the strong law of large numbers. 362: (with Friedman, N. and Koopmans, L. H.) On weak convergence of measures on  $[0, 1]$ .
- Kaufman, A. M. 4181: Some remarks on normal complexes of semi-groups.
- Kaufman, H. 1667: (with Bhargava, M.) Factorization of polynomial differential operators. 4302: (with Bhargava, Mira) Some properties of polynomial solutions of a class of Riccati-type differential equations.
- Kaufman, Robert P. 117: A construction in Boolean algebras. 166: Some irregular distributions modulo 1. 3282: Measures in independent sets. 4222: On certain singular measures.
- Kaul, R. N. 831: A note on curvatures associated with a vector field.
- Kaul, S. K. 2212: On irregular fixed points.
- Kaup, Ludger. 6486: (with Vasilache, Sergiu) Produit de composition dans des classes de cohomologie analytique.
- Kawahara, Yōsaku. 6274: (with Yokoyama, Yūichi) On higher differentials in commutative rings. 214: (with Kimura, Tetsuzo and Furuya, Mamoru) On ground field extensions of function fields.
- Kayama, Tokuchi. 5436: (with Ikeda, Mineo) On the generating function of spherical functions for unitary group.
- Kayande, A. A. 1708: (with Wong, J. S. W.) Finite time stability and comparison principles.
- Kazarinoff, Nicholas D. 3451: ★Geometric inequalities. 5072: On who first proved the impossibility of constructing certain regular polygons with ruler and compass alone.
- Kaz'min, Ju. A. 2993: Bases from successive primitives. 3246: On a class of interpolation problems.
- Keast, P. 2475: (with Campbell, C. M.) The stability of difference approximations to a self-adjoint parabolic equation, under derivative boundary conditions.
- Keckler, William G. 6102: (with Larson, Robert E.) Dynamic programming applications to water resource system operation and planning.
- Keedwell, A. D. 5112: On property D neofields.
- Keer, L. M. 1918: Coupled pairs of dual integral equations.
- Keesling, James. 3538: Mappings and dimension in general metric spaces.
- Kegel, Otto H. 297: Zur Struktur lokal endlicher Zusammenhangsgruppen. 4155: Noethersche 2-Gruppen sind endlich.
- Keimel, Klaus. 6224: Représentation d'anneaux réticulés dans des faisceaux. 6225: Anneaux réticulés quasi-réguliers et hyper-archimédiens.
- Keiser, V. H., Jr. 3439: Finite projective planes with nonsolvable transitive collineation groups.
- Keldyš, L. V. 6941: (with Černavskij, A. V.) Topological embeddings in euclidean space.
- Kelišky, R. P. 1852: (with Rivlin, T. J.) A rational approximation to the logarithm.
- Kelleher, James J. 5376: On isomorphisms of meromorphic function fields.
- Keller, Gordon. 1279: (with Dean, R. A.) Natural partial orders.
- Keller, H. H. 874: Die Limes-Uniformisierbarkeit der Limesräume.
- Keller, Herbert B. 5551: Nonexistence and uniqueness of positive solutions of nonlinear eigenvalue problems. 6038: ★Numerical methods for two-point boundary-value problems.
- Keller, J. 3832: Über eine Approximation von Markoff-Ketten hoher Stufe durch Ketten niedrigerer Stufe.
- Keller, Joseph B. 528: (with O'Malley, Robert E., Jr.) Loss of boundary conditions in the asymptotic solution of linear ordinary differential equations. II. Boundary value problems. 527: (with Handelmann, G. H. and O'Malley, R. E., Jr.) Loss of boundary conditions in the asymptotic solution of linear ordinary differential equations. I. Eigenvalue problems.
- Kellerer, H. G. 3630: Ein Momentenproblem für Familien von Zufallsvariablen.
- Kelley, Al. 3139: Invariance for linear systems of ordinary differential equations.



- Kellogg, R. B. 4945: (with Hageman, L. A.) Estimating optimum over-relaxation parameters.
- Kelly, G. Max. 1432: (with Eilenberg, Samuel) Closed categories.
- Kelly, John B. 92: Products of zero-one matrices.
- Kelman, Robert B. 5471: (with Marsh, Donald J. and Howard, Henry C.) Nonmonotonicity of solutions of linear differential equations occurring in the theory of urine formation.
- Kemhadze, S. S. 2860: Cyclic extension of ZA-groups.
- Kemp, Adrienne W. 3621: (with Kemp, C. D.) On a distribution associated with certain stochastic processes.
- Kemp, C. D. 3621: (with Kemp, Adrienne W.) On a distribution associated with certain stochastic processes.
- Kemp, Kenneth W. 2394: An example of errors incurred by erroneously assuming normality for cusum schemes.
- Kemp, L. F., Jr. 3608: Construction of joint probability distributions.
- Kemperman, J. H. B. 2907: Idempotent signed measures on a discrete group. 2713: (with Colebrook, C. M.) On non-normal numbers.
- Kempfert, H. 1355: On sign determinations in real algebraic number fields.
- Kempthorne, Oscar. 1014: The classical problem of inference—goodness of fit.
- Kendall, David G. 5320: Delphic semi-groups, infinitely divisible regenerative phenomena, and the arithmetic of  $p$ -functions.
- Kendall, Maurice G. 999: (with Stuart, Alan) ★The advanced theory of statistics. Vol. 3: Design and analysis, and time-series.
- Kenderov, P. 3511: A certain problem of A. Stone.
- Kendzhaev, I. 4431: The uniform and absolute convergence of eigenfunction expansions.
- Kennison, J. F. 2832: Full reflective subcategories and generalized covering spaces.
- Kent, D. C. 2647: (with Atherton, C. R.) The order topology in a bi-compactly generated lattice.
- Kenfabaev, S. 2604: Undecidability of the elementary theory of a certain ring.
- Kerby, William. 5133: ★Anordnungsfragen in Fastkörpern. 5831: Projektive und nicht-projektive Fastkörper.
- Kerimov, Ja. R. 794: The eigenfunction expansion of a nonselfadjoint boundary value problem generated by an infinite system of second order differential equations.
- Kerner, Hans. 1648: Kohärente analytische Garben mit niederdimensionalen Trägern.
- Kerntopf, Pawel. 1197: ★Fundamental mathematical concepts in the theory of automata: Relations. Algebraic systems. Lattices.
- Kerr, Donald R., Jr. 4547: Seminorm-dual subspaces of the algebraic dual of a linear space.
- Kertész, Andor. 4111: Some questions in the theory of Artinian rings.
- Kerzman, N. 6780: (with Berenstein, C. A.; Cotlar, M. and Krée, P.) Some remarks on the Marcinkiewicz convexity theorem in the upper triangle.
- Kestelman, H. 2921: Self-centred sets.
- Keyfitz, N. 1177: The integral equation of population analysis.
- Khan, M. A. 1999: (with Khan, M. A.) Function of exponential type belonging to  $L^2$  on the real line.
- Khandekar, P. R. 1660: On ultraspherical and Hermite polynomials.
- Khanh, Bui Doan. 6688: Les vecteurs singuliers associés à une famille d'opérateurs de type positif. 6760: (with Nguyen Phong Chau) Sur les opérateurs positifs extrémaux.
- Khas'minskii, R. Z. See Has'minskii, R. Z.
- Khatri, C. G. 2351: A note on exact moments of arc sine correlation coefficient with the help of characteristic function. 5962: (with Pillai, K. C. S.) On the moments of elementary symmetric functions of the roots of two matrices and approximations to a distribution.
- Khayyam, Omar. See Oğannisjan, V. A., #1217.
- Khichi, K. S. 6492: Integral involving Kampé de Fériet's function.
- Khoan, Vo-Khac. See Vo-Khac Khoan.
- Ki, U-hang. 4756: Note on infinitesimal CL-transformations of normal and  $K$ -contact metric spaces.
- Kibenko, A. V. 4507: (with Perov, A. I.) A theorem on the argument of an almost periodic function of several variables.
- Kičatov, Ju. F. 1183: Gaussian method of elimination of unknowns in application to problems of nonlinear optimization.
- Kichenassamy, S. 7158: Sur les congruences isotropes associées au tenseur de Weyl du type  $N$  de Petrov et au champ électromagnétique singulier.
- Kiefer, J. 2372: Multivariate optimality results.
- Kiehl, Reinhardt. 5218: Die de Rham Kohomologie algebraischer Mannigfaltigkeiten über einem bewerteten Körper. 469: (with Berger, R.; Kunz, E. and Nastold, H.-J.) ★Differentialrechnung in der analytischen Geometrie.
- Kiguradze, I. T. 6573: Monotonic solutions of  $n$ th-order nonlinear ordinary differential equations. 3128: (with Izjumova, D. V.) Some remarks on the solutions of the equation  $u'' + a(t)f(u) = 0$ .
- Kihlberg, Arne. 1129: On the unitary irreducible representations of the pseudo-orthogonal group  $L(3, 3)$ . 1525: (with Müller, V. F. and Halbwachs, F.) Unitary irreducible representations of  $SU(2, 2)$ .
- Kikuchi, Norio. 3164: On some fundamental theorems of contingent equations in connection with the control problems. 6530: On contingent equations satisfying the Carathéodory type conditions.
- Kikuchi, Shigetaka. 2155: Some properties of the curvature tensor in an areal space of the submetric class.
- Kilmister, C. W. 1223: ★Language, logic and mathematics.
- Kilpinen, John O. 4054: Inductive ring topologies.
- Kim, Jin Bai. 1493: Note on regular semigroups. 4182: On singular matrices.
- Kim, Sang Moon. 2172: Quasi-compact space and topological product of minimal Hausdorff space. 6902: A problem of connected-open topology for function space.
- Kim, V. S. 4643: Conditions for the existence of bounded solutions of a difference equation in a Banach space.
- Kimura, Ikuro. 1649: On normal analytic sets. I, II.
- Kimura, Tetsuzo. 214: (with Kawahara, Yusaku and Furuya, Mamoru) On ground field extensions of function fields.
- Kimura, Toshihisa. 1678: (with Konoshita, Kiyoshi) A remark on self-adjoint ordinary differential operators.
- King, Charles H. 3994: Conjugate generalized Fibonacci sequences.
- King, J. P. 4450: Some results for Borel transforms. 6653: A class of positive linear operators.
- Kingman, J. F. C. 981: Markov transition probabilities. II. Completely monotonic functions. 367: (with Robertson, A. P.) On a theorem of Lyapunov.
- Kinohara, Akira. 197: On the relation between 3-cohomology groups and relative differentials in complete fields. 198: On the relation between 4-cohomology groups and relative differentials in complete fields.
- Kiotina, G. V. 3422: Classification of families of collineations in the space  $P_n$ .
- Kiprijanov, I. A. 1747: A variational problem in a half-space.
- Kirby, Robion C. 922: The union of flat  $(n-1)$ -balls is flat in  $R^n$ .
- Kiričenko, V. V. 6316: (with Drozd, Ju. A.) Representations of completely decomposable rings.
- Kirillov, A. A. 347: Plancherel's measure for nilpotent Lie groups. 6405: Classification of irreducible unitary representations of a group of second-order matrices with elements from a locally compact field. 5260: (with Gel'fand, I. M.) The structure of the quotient algebra of the enveloping algebra of a semisimple Lie algebra.
- Kirillova, F. M. 3665: (with Gabasov, R.) A statistical problem on the optimal control of the terminal state of a linear system. 3866: (with Gabasov, R.) The maximum principle for L. S. Pontrjagin's extremals.
- Kiriškiev, R. I. 5775: Equidistant projections in Lobachevskii space. 5776: Oricyclic projections in Lobachevskii space.
- Kirkpatrick, P. B. 5771: A construction for a self-polar double- $N$  associated with a pair of normal rational curves.
- Kirmser, Ph. G. 7122: (with Dailey, G.) On an extension of Hill's method for solution of matrix differential equations with periodic coefficients.
- Kirsch, Arnold. 1284: (with Linder, Jürgen) Über nichtadditive reduzierbare Reihungen in endlichen Booleschen Verbänden.
- Kirschner, Gottlob. 6382: Die Untergruppen von quadratischen Matrizen und ihre Anwendungen.
- Kirshnits, D. A. See Kiršnie, D. A.
- Kiršnie, D. A. 2306: ★Field theoretical methods in many-body theory. 7143: ★Field theoretical methods in many-body systems.
- Kis, O. 5573: (with Szabados, J.) Remarks on the convergence of Lagrange interpolation.

- Kiselman, Christer O. 6751: Compacts d'unicité pour les fonctionnelles analytiques en une variable.
- Kishore, Nand. 3995: Congruence properties of the Rayleigh functions and polynomials. 5599: Absolute Nörlund summability of a factored Fourier series.
- Klaleyn, S. S. 3930: A problem from the domain of combinatorial analysis.
- Klasyński, J. 3399: A remark on continuity of one-parameter semi-groups of operators.
- Klaeva, L. N. 4365: The presence of nonvertical asymptotes for the solutions of second order differential equations with retarded argument. 724: (with Ved', Ju. A.) Criteria for the existence of asymptotes of solutions of integro-differential equations with retarded argument. 4536: (with Ved', Ju. A.) Convergence to finite limits of the solutions of integro-differential equations with retarded argument.
- Kitchen, J. W., Jr. 5614: The almost periodic measures on a compact abelian group.
- Kiwan, A. R. 589: Solution of the two-sided Cauchy problem for an  $m$ -dimensional generalized acoustic system. 1811: Solution of the acoustical Cauchy problem for positive and negative times.
- Kiyosawa, Takemitsu. 1650: On the extension of holomorphic functions for a complex manifold.
- Klamkin, M. S. 4724: Geodesics on surfaces of revolution. 5342b: Inequalities concerning the arithmetic, geometric and harmonic means.
- Klaus, Dieter. 2698: ★Allgemeine Mengenlehre: Ein Fundament der Mathematik. Band I. 3911: Bemerkungen zur finiten Mathematik.
- Klauder, John R. 7144: (with Sudarshan, E. C. G.) ★Fundamentals of quantum optics.
- Kleczek, Mieczysław. 6404: Invariant metrics in the classical groups.
- Klee, Victor. 5782: (with Gale, David and Rockafellar, R. T.) Convex functions on convex polytopes. See also Grünbaum, Branko, #2685.
- Kleijnen, J. P. C. 4938: An application of "importance sampling".
- Kleiman, Howard. 2733: The determination of a Galois polynomial from its root polynomials.
- Kleimenov, A. F. 5501: (with Šimanov, S. N.) On the question of the existence and the construction of periodic solutions of systems with lag which are close to Ljapunov systems.
- Klein, Abraham A. 6309: Rings nonembeddable in fields with multiplicative semigroups embeddable in groups.
- Klein, Felix. 1306: ★Elementarmathematik vom höheren Standpunkte aus. Erster Band: Arithmetik, Algebra, Analysis. 1307: ★Elementarmathematik vom höheren Standpunkte aus. Zweiter Band: Geometrie. 1308: ★Elementarmathematik vom höheren Standpunkte aus. Dritter Band: Präzisions- und Approximationsmathematik. 2665: ★Vorlesungen über höhere Geometrie. 2666: ★Vorlesungen über nicht-euklidische Geometrie.
- Klein, Melvyn. 1577: Estimates for the transfinite diameter with applications to conformal mapping.
- Klein, T. 4961: The multiplication of Schur-functions and extensions of  $p$ -modules.
- Kleitman, Daniel J. 3931: Maximal number of subsets of a finite set no  $k$  of which are pairwise disjoint. 6191: On a conjecture of Milner on  $k$ -graphs with non-disjoint edges. 3956: (with Erdős, Paul) On coloring graphs to maximize the proportion of multicolored  $k$ -edges.
- Klimkin, V. M. 2935: (with Areškin, G. Ja.) A generalization of Vitali's theorem on passage to the limit under the integral sign.
- Klimov, G. P. 973: (with Frank, L. S.) The structure of a stationary flow with a bounded aftereffect.
- Klimulev, A. V. 4366: Solution of differential-difference equations, symmetric with respect to a shift.
- Klingen, Helmut. 4020: Berichtigung zu: "Zum Darstellungssatz für Siegelsche Modulformen".
- Klingenberg, W. 4751: (with Gromoll, D. and Meyer, W.) ★Riemannsche Geometrie im Grossen.
- Klingmann, Manfred. 2264: Das Morse'sche Indextheorem bei allgemeinen Randbedingungen. 3602: Über die Umkehrung des Taylorschen Satzes und eine Anwendung auf Kurvenräume.
- Klopfenstein, Kenneth F. 3339: Laguerre spaces of entire functions.
- Klopfenstein, R. W. 2451: (with Millman, R. S.) Numerical stability of a one-evaluation predictor-corrector algorithm for numerical solution of ordinary differential equations.
- Klůvák, Igor. 4233: Completion of vector measure spaces. 6430: Characterization of Fourier-Stieltjes transforms of vector and operator valued measures. 5352: (with Duchaň, Miloslav) Inductive tensor product of vector-valued measures.
- Knapowski, S. 4034: On Siegel's theorem.
- Knapp, A. W. 1525: Fatou's theorem for symmetric spaces. I.
- Knopfmacher, J. 4146: Some homological formulae.
- Knapp, Paul. 4522: (with Sinkhorn, Richard) A note concerning simultaneous integral equations.
- Knops, R. J. 1812: (with Payne, L. E.) On the stability of solutions of the Navier-Stokes equations backward in time.
- Knowles, J. K. 5415: The Dirichlet problem for a thin rectangle.
- Knus, Max-Albert. 235: Sur une classe d'algèbres filtrées. 2837: Homology and homomorphisms of rings. 278: (with Stambach, U.) Anwendungen der Homologietheorie der Liealgebren auf Zentralreihen und auf Präsentierungen.
- Knuth, D. E. 3941: Very magic squares.
- Kobayashi, Minoru. 6578: On submanifolds in spaces of constant and constant holomorphic curvatures.
- Kobayashi, Shosichi. 3479: Isometric imbeddings of compact symmetric spaces. 4757: Hypersurfaces of complex projective space with constant scalar curvature. 6968: Irreducibility of certain unitary representations. 3485: (with Goldberg, Samuel I.) Holomorphic bisectonal curvature.
- Kobayashi, Teichl. 5885: On the immersion problem for certain manifolds.
- Koch, Helmut. 4147: Über die Hochschild-Serre-Sequenz. 5189: Über die Galoische Gruppe der algebraischen Abschliessung eines Potenzreihenkörpers mit endlichem Konstantenkörper.
- Koch, Winfried. 2236: (with Puppe, Dieter) Differenzierbare Strukturen auf Mannigfaltigkeiten ohne abzählbare Basis.
- Kočin, B. P. 2881: The structure of inverse ideal-simple  $\omega$ -semigroups.
- Kočkarev, B. S. 28: Estimation of the complexity of formulas for monotone functions of the algebra of logic in the class of disjunctive normal forms (d.n.f.).
- Kočura, A. I. 4385: The asymptotics of a solution of Dirichlet problems for second and fourth order equations.
- Kodaira, Kunihiko. 212: Pluricanonical systems on algebraic surfaces of general type. 3603: On the structure of compact complex analytic surfaces. III.
- Koecher, Max. 4134: Imbedding of Jordan algebras into Lie algebras. II.
- Koehler, John E. 3945: Folding a strip of stamps.
- Koenig, H. E. 7214: (with Tokad, Y.) State models of systems of multiterminal linear components.
- Koestner, Alfred. 3052: ★Lokale Darstellbarkeit eindimensionaler analytischer Mengen in zweidimensionalen normalen komplexen Räumen durch eine holomorphe Funktion.
- Kogalovskii, S. R. 1236: Algebraic constructions preserving compactness. 6172: A remark on compact classes of algebraic systems.
- Kogan, I. A. 2687: On the representation of numbers by certain quadratic forms in four variables. I. 2688: On the representation of numbers by certain quadratic forms in four variables. II.
- Kogbeilantz, Ervand. 5145: Quelques observations sur les nombres premiers.
- Koh, Kwangil. 1411: On quasi-injective ideals in the prime rings. 2654: A note on a fully ordered ring. 2808: On simple rings with maximal annihilator right ideals.
- Kohler, J. 1473: A note on solvable groups.
- Köhn, Johannes. 3029: (with Sieveking, Malte) Zum Cauchyschen und Dirichletschen Problem.
- Kokilašvili, V. M. 4369: Approximation in the mean of analytic functions of class  $E_p$ . 4270: The approximation of analytic functions of class  $E_p$  ( $p > 1$ ).
- Kokoreva, S. I. 5399: (with Kufarev, B. P.) Remarks on the structure of the set of prime ends of a sequence of plane regions converging to a kernel.
- Kokotović, P. 7112: (with Šiljak, D. D.) Automatic analog solution of algebraic equations and plotting of root loci by generalized Mitrović's method.

- Kolibrarová, Blanka. 4185: A note on the structure of some types of semigroups.
- Koljan, V. V. 4730: On the theory of curves in a composition space.
- Kolm, A. 2502: (with Nagel, B.) A generalized edge of the wedge theorem.
- Kolman, Bernard. 207: On a theorem in complete  $\mathbb{K}$ -adic rings.
- Kolmanovskii, V. B. 3153: Application of the Liapunov method to linear systems with lag. 5502: On S. S. Galsarjan's paper "On the foundation of the method of B. G. Galerkin for solving boundary-value problems for equations with deviating argument". 6053: Approximate methods of solution of boundary value problems and eigenfunctions and eigenvalue problems for integro-differential equations with deviating argument.
- Kolmogorov, A. N. 954: On the approximation of distributions of sums of independent summands by infinitely divisible distributions.
- Kolobov, P. G. 832: Infinitesimal deformations of a surface with preservation of area.
- Kołodner, I. I. 110: On completeness of partially ordered sets and fix-point theorems for isotone mappings. 2192: The compact graph theorem. 1764: (with Pederson, R. N.) A note on first order semilinear partial differential equations.
- Kolomý, Josef. 2046: Solution of nonlinear functional equations in linear normed spaces.
- Kolossi, E. 4603: A geometric characterization of weakly increasing polynomial weight functions.
- Kolumbán, Iosif. 4485: On the characterization of infra-elements.
- Komatsu, Hikosaburo. 1771: Resolutions by hyperfunctions of sheaves of solutions of differential equations with constant coefficients. 4808: On the Alexander-Pontrjagin duality theorem.
- Komjak, I. I. 3292: A convolution type integral equation with  $N$  kernels.
- Komkov, V. 520: (with Hallam, T. G.) Stability of solutions of ordinary differential equations with respect to a closed set.
- Komlenko, Ju. V. 1709: (with Tonkov, E. L.) A periodic boundary value problem for an ordinary second order differential equation.
- Komorowski, J. 799: A modern version of the E. Noether's theorems in the calculus of variations. I.
- Kompaniec, V. P. 5860: A problem of Bing.
- Komy, S. 7155: (with O'Riartaigh, L.) Some properties of ladder operators.
- Konda, Tomoko. 4775: A condition of convergent filters.
- Kondō, Ryōji. 3650: On weak potential operators for recurrent Markov chains with continuous parameters. 5418: On potential kernels satisfying the complete maximum principle.
- Kondo, Takeshi. 6375: On finite groups with a 2-Sylow subgroup isomorphic to that of the symmetric group of degree  $4n$ .
- Kondrašov, V. E. 596: The problem with radiation for operators which decompose into wave factors. 585: (with Gal'pern, S. A.) The Cauchy problem for differential operators which decompose into wave factors.
- Kondratenja, S. G. 4306: Mobile singular points of solutions of certain ordinary differential equations. 4305: (with Jablonskii, A. I.) Mobile singularities of systems of two differential equations.
- Kondrat'ev, V. A. 1777: Boundary value problems for elliptic equations in domains with conical or angular points.
- Konheim, Alan G. 4891: A note on time sharing with preferred customers.
- Konijn, H. S. 5358: (with Sacksteder, R.) Unbiased distinguishing of translation families and integrability with respect to a convolution of measures.
- Kononova, O. A. 4325: A certain equation of nonlinear vibrations.
- Konoshita, Kiyoshi. 1678: (with Kimura, Toshihisa) A remark on self-adjoint ordinary differential operators.
- Konoval'cev, I. V. 3790: Stability of double layer difference schemes. 4948: A certain solution algorithm for systems of linear equations in finite fields.
- Konovalov, A. N. 2472: Difference methods for calculation of plane problems of the theory of elasticity.
- Kontorovič, P. 1467: Three problems on the decomposition of groups. See also Kuroš, A. G.; Plotkin, B. I.; Susekin, N. F. and Ševrin, L. N., #3997.
- Koopmans, L. H. 362: (with Friedman, N. and Katz, M.) On weak convergence of measures on  $[0, 1]$ .
- Kopeč, J. 1538: Inverse monotone functions and their applications. 1843: On some classes of Nörlund means.
- Kopocińska, I. 5958: (with Kopociński, B.) Distributions of intervals between state changes in an  $M/G/1$  system with feedback.
- Kopociński, B. 2331: Breakdown processes of systems in series. 5958: (with Kopocińska, I.) Distributions of intervals between state changes in an  $M/G/1$  system with feedback. 7164: (with Trybusiowa, E.) Breakdown time distributions of systems in series.
- Kopp, V. G. 1518: Subgroups of rotations of five-dimensional and six-dimensional euclidean and Lorentz spaces.
- Korányi, Adam. 463: Analytic invariants of bounded symmetric domains. 4753: (with Helgason, S.) A Fatou-type theorem for harmonic functions on symmetric spaces.
- Korenbljum, B. I. 5388: An estimate of the type of an entire function and a time-optimal control problem.
- Korevaar, Jacob. 1209: ★Mathematical methods. Vol. 1: Linear algebra, normed spaces, distributions, integration.
- Kőrszöglö, Hayri. 5683: Reproducing kernels in separable Hilbert spaces. 7303: Prévision et filtrage linéaires et canal gaussien.
- Korfhage, R. R. 5239: Solutions of  $X^2 = I$  for matrices over finite rings with unity.
- Korin, Basil P. 4912: On the distribution of a statistic used for testing a covariance matrix.
- Kürle, H.-H. 1837: Über unstetige absolute Riesz-Summierung. I. 3240: Über unstetige absolute Riesz-Summierung. II.
- Korniljuk, N. P. See Korniljuk, M. P.
- Korniljuk, M. P. 3263: Best cubature formulas for certain classes of functions of several variables.
- Korobeinik, Ju. F. 1738: Solutions of certain functional equations in classes of functions analytic in convex domains. 536: (with Demčenko, T. I.) The solvability of a class of differential equations of infinite order.
- Korobcina, G. Ja. 7113: The representation of equations by means of binary nomograms of the type of Saint-Robert.
- Korobov, N. M. 2701: Certain questions of the theory of Diophantine approximations.
- Korobov, V. I. 3418: Sufficient conditions for optimality. 5045: The convergence of a certain variant of the method of dynamic programming for an optimal control problem.
- Koroljuk, V. S. 5078: (with Daniljuk, I. I.; Mitropol'skii, Ju. O.; Skorohod, A. V. and Jadrenko, M. I.) Iosif Il'in Gihman: On the occasion of his 50th birthday.
- Koromaličenko, V. D. 4486: The Čebyšev approximation of certain operators. I.
- Koromaličenko, V. D. See Koromaličenko, V. D.
- Korovkin, P. P. 5340: ★Inequalities. 5341: ★Inequalities. 5710: Conditions for uniqueness of the moment problem and for convergence of a sequence of linear operators.
- Korovkin, P. P. See Korovkin, P. P.
- Kościk, Stanisław. 6819: (with Ditchen, Ryszard and Glibowski, Edmund) On a system of fundamental concepts for elementary geometry.
- Koseki, Ken'iti. 2978: Über die Koeffizienten der schlichten Funktionen. V.
- Košelev, A. I. 3894: (with Babiš, V. M.; Bakel'man, I. Ja. and Mar'ja, V. G.) Solomon Grigor'evič Mihlin: On the sixtieth anniversary of his birth.
- Košelev, V. N. 5748: (with Morozov, S. F.) Sufficient conditions for the existence of discontinuous solutions for the simplest integral in the calculus of variations. I. 5749: (with Morozov, S. F.) Sufficient conditions for the existence of discontinuous solutions for the simplest integral in the calculus of variations. II.
- Koshi, Shozo. 5674: A note on Montel vector lattice. 6727: On the definition of nuclear space.
- Koskinen, Heikki. 3412: On variational principles and their numerical realization.
- Kosmodem'janskii, V. A. See Kosmodem'janskii, V. A.
- Kosmodem'janskii, V. A. 5756: Sufficient conditions for the absolute extremum in a variational problem of the Bolza-Meyer type.
- Koss, M. Š. 4990: A criterion of positiveness of the potential function



- of the oscillations of a mechanical system in the presence of two zero eigen-values.
- Kostenko, I. P.** 732: The reflexivity of certain unions of semiordeered spaces. 743: Almost uniform convergence in  $K$ -spaces. 4559: Reflexive unions of  $K$ -spaces.
- Kostin, A. V.** See **Kostin, O. V.**
- Kostin, O. V.** 5484: The asymptotic properties of solutions of first order ordinary differential equations.
- Kostovskii, A. N.** See **Kostova'kil, O. M.**
- Kostova'kil, O. M.** 2959: (with Viten'ko, I. V.) Fujiwara's theorem concerning a lower bound for the absolute values of the zeros of power series. 3944: (with Kardaš, A. I. and Čulik, I. I.) Newton majorants and diagrams for functions of several variables.
- Kostrikin, A. I.** 4150: Zum Problem von Gruppen mit Erzeugenden und definierenden Relationen.
- Kotanska, Toshio.** 7107: Multi-stage distribution processes.
- Kotas, Jerzy.** 115: An axiom system for the modular logic. 1235: (with Pieczkowski, August) A cylindrical algebra based on the Boolean ring.
- Köthe, Gottfried.** 1949: Lifiable locally convex spaces. 3322: Über einen Satz von Sobczyk.
- Kotlarski, I.** 2307: A theorem on joint probability distributions in stochastic locally convex linear topological spaces.
- Kotzig, A.** 5118: Über einige Anwendungen der Graphentheorie bei der Lösung ökonomischer Probleme. 3946: (with Bosák, Juraš and Znáim, Štefan) Strongly geodesic graphs.
- Koubek, Ladislav.** See **Kuroš, A. G.**, #3.
- Kovač, Ju. I.** 3091: A certain estimate of the solution of a boundary value problem for a nonlinear system of ordinary differential equations of order  $2k$ . 5524: An estimate of the solution of the Cauchy problem for a partial differential equation of order  $2n$ .
- Kovach, Ladis D.** 2406: (with Larson, Ronald V.) Approximations with rational polynomials.
- Kovács, L. G.** 5277: On the number of varieties of groups. 5276: (with Newman, M. F. and Pentony, P. F.) Generating groups of nilpotent varieties.
- Koval', P. I.** 4335: Asymptotic behavior of solutions of a system of linear differential equations.
- Koval'chuk, V. E.** See **Koval'čuk, V. E.**
- Koval'čuk, B. V.** 4490: (with Gubanov, G. P.) The asymptotic estimate of the remainder in the approximation of continuous periodic functions by sums of Bernstein type.
- Koval'čuk, V. E.** 1815: (with Vorovič, I. I.) On the basic properties of a system of homogeneous solutions.
- Kovalenko, I. N.** 5957: (with Gnedenko, B. V.) ★Introduction to queueing theory.
- Kovaleva, G. A.** 833: An example of a surface which is homotopic to a tube and has a closed asymptotic line.
- Kovancev, M. I.** 855: †The geometry of manifolds which are immersed in a space with a fundamental group connection. 3474: Non-holonomic spaces with connection. 6554: (with Fedorenko, V. A.) Conformal mappings of a line complex.
- Kovancev, N. I.** See **Kovancev, M. I.**
- Kövari, T.** 5401: On the uniform approximation of analytic functions by means of interpolation polynomials. 2995: (with Clunie, J.) On integral functions having prescribed asymptotic growth. II. 3013: (with Pommerenke, Ch.) On Faber polynomials and Faber expansions.
- Kovtun, A. V.** 3458: Some questions of the theory of congruences in connection with the theory of the transformation of focal surfaces.
- Kowada, Masasi.** 5725: Spectral type of one-parameter group of unitary operators with transversal group.
- Kowalski, Oldřich.** 4209: The invariant classification of 3-dimensional linear subspaces of infinitesimal isometries of  $E_3$ .
- Kowalski, Z.** 3787: A difference method for a non-linear system of parabolic differential equations without mixed derivatives. 4979: A difference method for an adiabatic problem in non-linear parabolic equations.
- Kolacenko, Ju. V.** 3268: Local properties of sums of certain random series. 3640: Sufficient conditions for the continuity with probability one of sub-Gaussian random processes.
- Kozakiewicz, E.** 2956: Über das Wachstum des Betrages komplexer Polynome.
- Kozakiewicz, Erwin.** 4367: Über die Lage der Nullstellen gewisser Lösungen einer linearen Differentialgleichung mit nachteilendem Argument. 4368: Über einen Satz von Mychkiś.
- Kozlov, K. P.** 4186: Existence of rigid cells in the Cayley table of a semigroup.
- Kozlov, O. M.** 5026: (with Filipovič, E. I.) The number of steps in the solution of linear programming problems by the simplex method.
- Kozlova, Z. I.** 1254: On projective extensions of set-theoretic operations.
- Kozubovakaja, I. G.** 3154: (with Martynjuk, D. I.) On the question of periodic solutions of quasilinear autonomous systems with lag.
- Kra, Irwin.** 1633: On the ring of holomorphic functions on an open Riemann surface.
- Krabs, W.** 5539: Eine nichtlineare Eigenwertaufgabe bei rationaler Approximation.
- Kraft, Charles H.** 3668: (with van Eeden, Constance) ★A nonparametric introduction to statistics.
- Kraft, Richard.** 5416: Reflection of polyharmonic functions.
- Kralko, A. N.** 2494: On the solution of variational problems of supersonic gas dynamics.
- Krakus, B.** 6908: (with Trybulec, A.) A strongly convex and not contractible metric space.
- Krall, Allan M.** 498: Differential-boundary equations and associated boundary value problems. 6525: Differential operators and their adjoints under integral and multiple point boundary conditions.
- Krall, H. L.** 4499: (with Sheffer, I. M.) Orthogonal polynomials in two variables.
- Kramar, F. D.** 14: The origins of vector algebra in Wallis' mechanics. 1221: From the universal arithmetic of Newton to the quaternion algebra of Hamilton.
- Krantz, David H.** 1280: Extensive measurement in semiorders.
- Krasičkov, I. F.** See **Krasičkov-Ternovskii, I. F.**
- Krasičkov-Ternovskii, I. F.** 5685: Closed ideals in locally convex algebras of entire functions. Algebras of minimal type.
- Krasner, Marc.** 1349: Nombre des extensions d'un degré donné d'un corps  $p$ -adique. 5195: (with Dokas, Lambros) Nombres semi-préférentiels.
- Krasnosel'skii, M. A.** 1741: (with Lifšic, E. A. and Strygin, V. V.) A new method in the problem of periodic solutions of equations with deviating argument.
- Krasnosel'skii, V. M.** 2047: The construction of the invariant cone for a class of nonlinear completely continuous operators. 4680: Investigation of small solutions of a certain class of nonlinear operator equations.
- Krasovskii, N. N.** 6114: A certain peculiarity of the contact of motions in a game. 6117: (with Bondarenko, V. I. and Filimonov, Ju. M.) On the problem of bringing a linear system to its equilibrium position.
- Kratko, M. I.** 5998: Formal Post calculi and finite automata.
- Kräusel, Ekkehard.** 1901: Übertragung der Post-Widderschen Umkehrformel der Laplace-Transformation auf die  $\mathcal{L}$ -Transformation. 1902: Differentialgleichungen vom Fokker-Planckschen Typ. 6697: Eine Verallgemeinerung der Laplace- und Meijer-Transformation. 6698: Die Faltung der  $L$ -Transformation.
- Kravčuk, D. N.** 6199: (with Alzenštāt, V. S.) On the question of obtaining an extremum of a linear form on the set of all complete cycles.
- Krée, P.** 4604: Propriétés de continuité dans  $L^p$  de certains noyaux. 4605: Interpolation d'espaces vectoriels qui ne sont ni normés, ni complets. Applications. 1760: (with Boutet de Monvel, Louis) Pseudo-differential operators and Gevrey classes. 6750: (with Berenstein, C. A.; Cotlar, M. and Kerzman, N.) Some remarks on the Marcinkiewicz convexity theorem in the upper triangle.
- Krein, M. G.** See **Bogoljubov, N. N.**; **Gohberg, I. C.** and **Šilov, G. E.**, #5077.
- Kreindler, Elena.** 1401: Remarques sur le théorème des facteurs invariants. 4117: Opérateurs pseudo-linéaires dans les modules unitaires. 6347: Sur les objets libres dans une catégorie abélienne avec objets principaux.
- Kreisel, E.** 1149: (with Liebscher, D.-E. and Treder, H.-J.) ★Zur Quantengeometrodynamik.
- Kreisel, G.** 2577: Lawless sequences of natural numbers. 3914: (with Lévy, A.) Reflection principles and their use for establishing the complexity of axiomatic systems.

- Kreiss, Heinz-Otto. 3777: (with Lundqvist, Einar) On difference approximations with wrong boundary values.
- Kreith, Kurt. 596: Disconjugacy in  $E^n$ . 3178: A strong comparison theorem for selfadjoint elliptic equations. 4400: Criteria for positive Green's functions. 6624: (with Theil, E. H.) A criterion for nondiscrete lower spectra.
- Krékó, Béla. 3963: ★Lehrbuch der linearen Optimierung.
- Krengel, Ulrich. 372: Darstellungssätze für Strömungen und Halbströmungen. I.
- Kreyszig, Erwin. 2096: ★Introduction to differential geometry and Riemannian geometry. 4748: ★Differentialgeometrie.
- Krickaja, S. S. 3271: Properties of certain series which are connected with the eigenfunctions and eigenvalues of a Sturm-Liouville type boundary value problem.
- Krickeberg, Klaus. 1557: Mischende Transformationen auf Mannigfaltigkeiten unendlichen Masses. 6423: Ein Isomorphiesatz über topologische Massräume.
- Krieger, Wolfgang. 6436: On the isomorphy problem for ergodic equivalence relations.
- Krinikii, N. A. 2486: (with Mironov, G. A. and Frolov, G. D.) ★Programming.
- Kripke, Bernard. 4483: (with Holmes, Richard) Smoothness of approximation.
- Kriščiūnaitė, A. 5903: Almost contact structures on hypersurfaces of a four-dimensional centro-affine space of elliptic and hyperbolic type.
- Kriščiūnaitė, A. L. See Kriščiūnaitė, A.
- Krishnaswami, P. 2376: (with Nath, Rajeshwar) Bias in multinomial classification.
- Kristalinskii, R. H. 444: The principle of duality in the theory of regular quaternionic functions, and some applications of it. 445: The existence of complete homeomorphisms for certain quaternionic equations.
- Kristiansson, Lars. 3083: On "sliding approximations" associated with certain linear differential equations.
- Krivenkov, Ju. P. 4376: Linear optimal processes with unbounded control. I. 7165: The use of the theory of optimal processes for the investigation of production models. II.
- Krivos, Ju. M. 4958: The application of averages of functions to the solution of equations.
- Krivososov, L. N. 834: Principal nets of parallel and normal correspondence of surfaces in  $E_4$ .
- Krivošein, L. E. 1931: On the solution of a certain problem for integro-differential equations. 1932: A general method for solving systems of linear integro-differential equations. 4532: On the solution of a boundary value problem for an integro-differential equation with deviating argument. 4539: The solution of certain problems for integro-differential equations. 5654: On the solution of a certain class of integro-differential equations. 5658: The approximate solution of a certain class of linear integro-differential equations. 6723: (with Mangeron, D.) Contributions to the study of the polyvibration equation. II. Qualitative behavior of the solutions for a class of non-linear integro-differential boundary problems.
- Kronk, Hudson V. 5115: (with Chartrand, Gary and Kapoor, S. F.) A sufficient condition for  $n$ -connectedness of graphs. 5117: (with Kapoor, S. F. and Lick, D. R.) On detours in graphs.
- Kronmal, R. 7023: (with Tarter, M.) The estimation of probability densities and cumulatives by Fourier series methods.
- Kropotov, A. I. 3896: ★Nicolai Jakovlevič Sonin (1849–1915).
- Krústev, Rangel. 6842: Conformal mapping between ruled surfaces.
- Kručkovič, G. I. 857: Criteria for almost semireducible Riemannian spaces.
- Krugljakov, L. Z. 4727: Semi-focal 2-families of straight lines in  $P_2$ . 6855: On 2-families of straight lines in  $P_3$  and pairs of congruences of straight lines in  $P_3$ .
- Krudikovskii, N. N. 18: ★History of the development of mathematics in Tomsk.
- Krull, Wolfgang. 5197: ★Idealtheorie.
- Kruming, P. D. 1504: Some direct decompositions in semigroups.
- Kruse, Arthur H. 2272: Some notions of random sequence and their set-theoretic foundations.
- Kruse, Robert L. 2792: Rings in which all subrings are ideals. I.
- Krukal', S. L. 4251: A certain class of extremal quasiconformal mappings.
- Krushkov, S. N. See Kruškov, S. N.
- Kruškov, S. N. 1798: Nonlinear parabolic equations with two independent variables. 6618: On some problems with unknown boundaries for the heat conduction equation.
- Krylov, V. I. 490: (with Skobljā, N. S.) A remark on convergence and error estimate of an approximate inverse of the Laplace transform by means of the Legendre and Jacobi orthogonal polynomials.
- Krysicki, W. 1008: (with Kącki, E.) Die Parameterschätzung einer Mischung von zwei Laplaceschen Verteilungen (im allgemeinen Fall).
- Krzywicki, A. 2473: On a new finite-difference scheme for the non-stationary Navier-Stokes equations. 2474: On finite-difference approximations to steady-state solutions of the Navier-Stokes equations.
- Krzyż, J. 1592: On an extremal problem of F. W. Gehring.
- Kschwendt, H. 3737: Convergence limits in the Monte Carlo theory of integral equations.
- Kahrsagar, A. M. 3700: (with Ranganathan, S.) Analysis of a class of two-way designs with recovery of inter-row and inter-column information.
- Ku, Hsu-tung. 6399: An Euler characteristic formula for compact group actions.
- Ku, Mei-chin. 2262: Cohomology structure of orbit spaces.
- Kubiński, Tadeusz. 41: Some observations about a notion of incomplete answer. 6166: On extension of the theory of syntactic categories.
- Kublanovskaja, V. N. 6017: (with Faddeev, D. K. and Faddeeva, V. N.) Sur les systèmes linéaires algébriques de matrices rectangulaires et mal-conditionnées.
- Kublanovskaya, V. N. See Kublanovskaja, V. N.
- Kubo, Izumi. 6437: Infinite product of ergodic flows with pure point spectra.
- Kubota, Tomio. 4035: On a special kind of Dirichlet series.
- Kubota, Yoshihisa. 2979: On the group of (1, 1) conformal mappings of an open Riemann surface onto itself.
- Kubota, Yōto. 2937: On the compatibility of the AP- and the D-integrals. 4217: An abstract integral. 4228: On a characterization of the CP-integral.
- Kučera, Jan. 1692: Solution in large of control problem  $\dot{x} = (A(1-u) + Bu)x$ . 1693: Solution in large of control problem  $\dot{x} = (Au + Bv)x$ .
- Kučerenko, Ė. I. 1749: The convergence of Galerkin's method for the Cauchy problem of a system of nonlinear hyperbolic equations with two independent variables.
- Kučerova, K. I. 5606: Linear summation methods of double Fourier series.
- Kuczma, Marcin E. 3359: On a problem of E. Michael concerning topological divisors of zero.
- Kuczma, Marek. 1829: On a functional characterization of the logarithm. 4441: ★Functional equations in a single variable. 6629: (with Burek, J.) Einige Bemerkungen über monotone und konvexe Lösungen gewisser Funktionalgleichungen.
- Kudaev, M. B. 1721: An application of a class of Ljapunov functions.
- Kudš, Hirokichi. 3687: On partial prior information and the property of parametric sufficiency. 3688: Bayes class and Wald class.
- Kuelbs, J. 2300: The invariance principle for a lattice of random variables.
- Kufarev, B. P. 5689: The absolute continuity of functions of class  $\tilde{W}_p^1$  on the level sets of a function of class  $\tilde{W}_p^1$ , and certain boundary properties of mappings with generalized derivatives in a plane region. 5399: (with Kokoreva, S. I.) Remarks on the structure of the set of prime ends of a sequence of plane regions converging to a kernel. 376: (with Nikulina, N. G.) A connection between the Lebesgue measure of subsets of euclidean space and the  $n$ -dimensional variation of the function distance to a closed set.
- Kufner, Alois. 2567: (with Nečas, Jindřich) In memoriam of Jan Kadlec.
- Kuhn, Harold W. 7180: On games of fair division.
- Kühnau, Reiner. 394: Über die analytische Darstellung von Abbildungsfunktionen, insbesondere von Extremalfunktionen der Theorie der konformen Abbildung. 2969: Über die schlichte konforme Abbildung auf nichtüberlappende Gebiete.

- Kühnrich, Martin. 54: Die relative Konsistenz axiomatischer Mengentheorien. 6185: Zwei zum Auswahlaxiom äquivalente Aussagen.
- Kuks, L. M. 632: (with Svirčevskii, A. A.) Theorems in the qualitative theory of partial difference equations.
- Kulback, M. 2918: Sur les ensembles stationnaires et déterminants pour certaines classes de dérivées symétriques.
- Kulesko, N. A. 5503: The completeness of Floquet's system of solutions of equations of neutral type.
- Kulikov, L. Ja. 311: Extension groups of abelian groups.
- Kulikov, V. A. 751: Certain questions in the theory of Orlicz spaces generated by combinations of  $N$ -functions.
- Kulisch, U. 3744: Über reguläre Zerlegungen von Matrizen und einige Anwendungen. 4954: (with Apostolatos, N. and Nickel, K.) Ein Einschließungsverfahren für Nullstellen.
- Kulkarni, V. N. 4259: Maximum term and the rank of an entire function.
- Kullback, S. 4904: Probability densities with given marginals. 4993: (with Ireland, C. T.) Contingency tables with given marginals.
- Kulshrestha, G. C. N. 6644: Summability factors for generalized strong Riesz logarithmic boundedness.
- Kulyšev, P. S. 6550: The global stability of a certain second order system.
- Kumano-go, Hitoshi. 590: On the uniqueness of the solution of partial differential equations.
- Kumpel, P. G., Jr. 2258: Symmetric spaces and products of spheres.
- Kuncov, I. M. 6200: On the question of minimizing the value of a linear form on the set of cycles of length  $n$ . I. 6306: The extremum of quadratic and bilinear forms on the symmetric group  $S_n$ .
- Künne, Hermann. 3491: (with Haupt, Otto) ★Geometrische Ordnungen.
- Kunz, Ernst. 202: Vollständige Durchschnitte und Differenzen. 469: (with Berger, R.; Kiehl, R. and Nastold, H.-J.) ★Differentialrechnung in der analytischen Geometrie.
- Künzi, Hans P. 2413: (with Tschach, H. G. and Zehnder, C. A.) ★Numerical methods of mathematical optimization, with ALGOL and FORTRAN programs. 7115: (with Andelić, T. P.; Aumann, G.; Bauer, F. L.; Bulirsch, R.; Rutishauser, H.; Samelson, K.; Sauer, R. and Stoer, J.) ★Mathematische Hilfsmittel des Ingenieurs. Teil III.
- Kupisch, Herbert. 5308: Projektive Moduln endlicher Gruppen mit zyklischer  $p$ -Sylow-Gruppe.
- Kuramochi, Zenjro. 2980: On the boundaries of Riemann surfaces.
- Kuranishi, Masatake. 943: Involutive property of resolutions of differential operators.
- Kuratowski, Kazimierz. 6893: ★Introduction à la théorie des ensembles et à la topologie. 5100: (with Mostowski, A.) ★Set theory.
- Kurdanov, H. Ju. 3088: A new proof of the instability of the characteristic exponents of a certain regular system.
- Kurepa, Đuro. 82: On the set of all  $h$ -sequences of  $m$ -ary digits. 2181: Dendritic of spaces and of ordered sets. 4773: On the category number of topological spaces.
- Kurepa, Svetozar. 2776: On  $\sigma(xy) = \sigma(yx)$ . 4451: On a nonlinear functional equation.
- Kurihara, Mitunobu. 5520: On a Harnack inequality for nonlinear parabolic equations.
- Kuriyama, Yoshiaki. 2224: (with Ōike, Hiroshi) On the retractions of stunted projective spaces.
- Kuriyan, Jacob G. 5008: (with Mukunda, N. and Sudarshan, E. C. G.) Master analytic representations and unified representation theory of certain orthogonal and pseudo-orthogonal groups.
- Kurke, H. 1361: Eine Bemerkung über quadratische Transformationen. 4058: Einige Eigenschaften von quasiendlichen Morphismen von Präschemas.
- Kurlandzki, J. 1778: Infinite system of algebraic equations connected with a mixed elliptic boundary problem.
- Kurmanalin, H. 5194: Completely critical cyclic fields of degree  $l^2$ .
- Kurnik, Zdravko. 5777: (with Volence, Vladimir) Die Verallgemeinerungen des Ptolemäischen Satzes und einiger seiner Analoga in der euklidischen und den nichteuklidischen Geometrien.
- Kuroda, Sige-Nobu. 1352: Some results on  $\Gamma$ -extensions of algebraic number fields.
- Kuropatenko, É. S. 3738: (with Ogibin, V. N.) A scheme for simulating the trajectories of particles in systems with a complicated geometry.
- Kuroš, A. G. 3: ★Chapters in general algebra. 3597: (with Plotkin, B. I.; Sosekin, N. F. and Ševrin, L. N.) Petr Grigor'evič Kontorovič: Obituary.
- Kurowski, G. J. 440: A convolution product for semi-discrete analytic functions. 2454: (with Banks, D. O.) Computation of eigenvalues of singular Sturm-Liouville systems.
- Kurpel', M. S. 2017: Convergence criteria and error estimates of a generalized iteration method for equations in a generalized metric space.
- Kurtjakov, S. U. 2767: (with Tomašević, F. V.) Expansion in terms of a non-orthogonal system of elements.
- Kurtz, L. C. 6663: (with Shah, S. M.) On the  $L^1$  norm and the mean value of a trigonometric series.
- Kurs, Ludwik. 5928: (with Strakhov, Nicholas A.) An upper bound on the zero-crossing distribution.
- Kusaba, Toshio. 173: Remarque sur la distribution des nombres premiers.
- Kusano, Takaši. 5538: On the decay for large  $|x|$  of solutions of parabolic equations with unbounded coefficients.
- Kushner, H. J. 2545: On the stability of processes defined by stochastic difference-differential equations. 7200: Some problems and some recent results in stochastic control.
- Kušnirčuk, I. F. 563: The method of characteristics for partial differential equations in complex-real space.
- Kusunoki, Yukio. 1589: (with Mori, Shin-ichi) Some remarks on boundary values of harmonic functions with finite Dirichlet integrals.
- von Kutschera, Franz. 3903: ★Elementare Logik.
- Kuttler, J. R. 1816: (with Sigillito, V. G.) Inequalities for membrane and Stekloff eigenvalues.
- Kuttner, B. 5690: Two theorems connected with summability of Fourier series.
- Kutuzov, B. V. 4693a: ★Geometry. Vol. I. 4693b: ★Geometry. Vol. II. 4693c: ★Geometry. Vol. III.
- Kutyev, K. M. 6223: SL-isomorphism of a lattice-ordered group.
- Kužel', O. V. 4580: A characteristic operator function of an arbitrary bounded operator.
- Kuzik, G. A. 5410: The ring of  $t$ -complex numbers and elementary ring mappings.
- Kuz'min, E. N. 1427: Locally finite Mal'cev algebras. 1994: An estimate in the theory of normed rings. 2529: A class of anti-commutative algebras. 19: (with Aleksandrov, P. S.; Eršov, Ju. L.; Kargapolov, M. I.; Smirnov, D. M.; Talmanov, A. D. and Širkov, A. I.) Anatolii Ivanovič Mal'cev: Obituary.
- Kuz'mina, G. V. 402: Estimates of the transfinite diameter of a certain family of continua and covering theorems for schlicht functions.
- Kuz'mina, V. V. 5131: The inclusion of a lattice with mean elements in a  $K$ -space.
- Kuz'minov, V. 316: The limit sequence of an exact sequence of inverse spectra.
- Kuz'minyh, V. A. 3117: Sufficient conditions for the existence of a periodic solution for a non-autonomous second order differential equation.
- Kuznecov, Ju. A. 7067: (with Marčuk, G. I.) On the question of optimal iteration processes.
- Kuznecov, N. N. 1765: A weak solution of the Cauchy problem for a first order equation with two independent variables.
- Kuznecov, V. 3502: Spaces of closed subsets.
- Kval'vasser, V. I. 3077: (with Berkovič, L. M.) Operator identities and certain ordinary linear differential equations of higher orders which are integrable in closed form.
- Kwack, Myung He. 5426: Generalization of the big Picard theorem.
- Kwapień, S. 6767: Some remarks on  $(p, q)$ -absolutely summing operators in  $l_p$ -spaces.
- Kwapisz, M. 5746: On a certain method of successive approximations. 6034: Remarks on a certain algorithm for solving of ordinary differential equations.
- Kwee, Bun-kong. 1876: On the convergence criterion of M. Izumi and S. Izumi.
- Kwon, Kyung Whan. 2230: (with Raymond, Frank) Spherical manifolds.
- Kyner, W. T. 5023: Rigorous and formal stability of orbits about an oblate planet.



- Kyogoku, Jun-ichi. 3728: On a method of quantifying  $N$ -way frequency tables.
- Labelle, G. 356: (with Rahman, Q. I.) L'influence des zéros sur la borne dans le théorème de Markoff pour les polynômes sur l'intervalle unite. 5374: (with Rahman, Qazi Ibadur) Remarque sur la moyenne géométrique de fonctions univalentes convexes.
- Laborde, P. 137: On an algorithm which produces the g.c.d. of a set of  $n$  ( $n \geq 2$ ) integers in a simultaneous manner.
- Labrousse, J. P. 2035: On a metric space of closed operators on a Hilbert space.
- Labsker, L. G. 6654: A family of linear integral operators of a certain general construction. I. 6655: A family of linear integral operators of a certain general construction. II.
- Lacey, H. E. 6896: (with Hardy, Jack) Notes of perfectness and total disconnectedness.
- Lacher, R. C. 4818: Topologically unknotting tubes in Euclidean space.
- Lachlan, A. H. 2593: The elementary theory of recursively enumerable sets. 2594: On the lattice of recursively enumerable sets.
- Ladis, N. N. 4360: The absence of bilateral attraction points.
- Ladohn, V. I. 6985: The Cramér, Lindeberg and Cebyshev theorems for complex distributions.
- Ladyženskaja, O. A. 2493: New equations for the description of the motions of viscous incompressible fluids, and global solvability for their boundary value problems. 615: (with Stupjalis, L.) Letter to the editors. 604: (with Ural'ceva, N. N.) On linear and quasilinear equations and systems of elliptic and parabolic types. 3182: (with Ural'ceva, N. N.) Certain classes of nonuniformly elliptic equations. 3898: (with Lozinskii, S. M. and Mihlin, S. G.) Vladimir Ivanovič Smirnov: On the eightieth anniversary of his birth. See also Proceedings of the Steklov Institute of Mathematics, #6143.
- Ladyženskaya, O. A. See Ladyženskaja, O. A.
- Lafon, Jean-Pierre. 4118: Représentation d'algèbres comme quotients d'anneaux d'endomorphismes.
- Lagnese, John E. 6581: A solution of Hadamard's problem for a restricted class of operators.
- Lagunov, V. N. 5043: Conditions for the existence of pursuit control.
- Laha, R. G. 4210: Nonnegative eigen functions of Laplace-Beltrami operators on symmetric spaces. 998a: (with Chakravarti, I. M. and Roy, J.) ★Handbook of methods of applied statistics. Vol. I: Techniques of computation, descriptive methods, and statistical inference. 998b: (with Chakravarti, I. M. and Roy, J.) ★Handbook of methods of applied statistics. Vol. II: Planning of surveys and experiments.
- Lai, Hang-chin. 640: (with Lee, Shing-meng and Liu, Wei-nung) A note on  $W^{(n,\infty)}$  summability.
- Laird, M. J. See Bicadze, A. V., #1773.
- Lajos, S. 2882: On characterization of regular semigroups. 4187: On the theory of ideals in semigroups. I. 4188: On the theory of ideals in semigroups. II.
- Lakatos, Imre. See Problem of inductive logic, #3886.
- Lakkis, Konstantin. 6270: Die galoisschen Gauss'schen Summen von Haase.
- Lakshmikantham, V. 521: (with Leela, S.) Comparison principle and Lyapunov's second method. 5517: (with Leela, S.) Parabolic differential equations and conditional stability. 522: (with Tsokos, C. P.) Control systems and differential inequalities. 3133: (with Verma, G. R.) Several Lyapunov functions and mixed stability.
- Lakshminarasimhan, T. V. 1602: On the mean of an entire function and the mean of the product of two entire functions.
- Lal, Jitendra. 3041: (with Dikshit, G. P.) On analytic functions of several complex variables.
- Lal, Mohan. 2414: (with Shanks, Daniel and Wrench, John W., Jr.) Corrigenda to: "The calculation of certain Dirichlet series". See also Sexton, Charles R., #1300.
- Lal, V. J. 6935: Wall obstruction of a fibration.
- Lalitha, R. 4593: Contributions to the study of certain spaces of entire functions and of entire functions with coefficients in a Banach space.
- Lallement, Gérard. 1505: Demi-groupes réguliers.
- Lalli, B. S. 3129: On stability of solutions of certain differential equations of the third order.
- Lam, Tait-yuen. 304: Artin exponent of finite groups. 5309: A theorem on Green's modular representation ring.
- LaMacchia, Samuel. 2596: (with Abian, Alexander) On the existence of an empty set in set-theoretical models.
- Lambek, Joachim. 270: A fixpoint theorem for complete categories.
- Lambert, H. W. 901: Some comments on the structure of compact decompositions of  $S^n$ . 902: (with Sher, R. B.) Point-like 0-dimensional decompositions of  $S^n$ .
- Lambert, Karel. 1229: (with Scharle, Thomas) A translation theorem for two systems of free logic.
- Lambert, Pol V. 3280: Réalité des projecteurs de norme minimum sur certains espaces de Banach.
- Lambotte, Jean-Pierre. 7014: Processus semi-Markoviens et files d'attente.
- Lambrakis, D. P. 3701: Experiments with mixtures: A generalization of the simplex-lattice design. 3702: Experiments with  $p$ -component mixtures.
- Lamontagne, Roland. See Lettres de Bouguer à Euler, #6151.
- Lampert, John. 5932: On random time substitutions and the Feller property. 3657: (with Ney, Peter) Conditioned branching processes and their limiting diffusions.
- Lancaster, H. O. 2348: (with Eagleson, G. K.) The regression system of sums with random elements in common.
- Lance, E. C. 5706: Inner automorphisms of UHF algebras.
- Lanconelli, Ermanno. 4606: Tracce su rette coordinate di un certo spazio funzionale.
- Lanczos, C. 7100: Boundary value problems and the algebraic method.
- Lander, L. J. 6237: (with Parkin, T. R.) On first appearance of prime differences.
- Landesman, Edward M. 1965: A generalized Lax-Milgram theorem.
- Landis, E. M. 574: A new proof of E. De Giorgi's theorem. 3191:  $s$ -capacity and its application to the investigation of solutions of a second order elliptic equation with discontinuous coefficients. 4395: Harnack's inequality for second order elliptic equations of Cordes type. 5526:  $s$ -capacity and the behavior of the solution of a second order elliptic equation with discontinuous coefficients in the neighborhood of a boundary point.
- Landweber, Peter S. 2237: On the symplectic bordism groups of the spaces  $Sp(n)$ ,  $HP(n)$ , and  $BSp(n)$ . 2238: The bordism class of a quasi-symplectic manifold. 4815: Steenrod representability of stable homology.
- Lane, N. D. 836: (with Singh, K. D.) Union and extension of arcs of cyclic order three.
- Lanery, E. 2536: Étude asymptotique des systèmes markoviens à commande.
- Langenhop, C. E. 226: On generalized inverses of matrices. 5513: Note on a stability condition of C. T. Taam.
- Langer, Heinz. 4650: Über stark gedämpfte Scharen im Hilbertraum.
- Langley, P. G. 1040: (with Afifi, A. A. and Elashoff, R. M.) An investigation into the small sample properties of a two sample test of Lehmann's.
- Lanier, Lyle H., Jr. 1517: (with England, James W.) Transformation groups of automorphisms of  $C(X)$ .
- Lanis, I. N. 616: On the theory of the equation  $yz_{xx} + z_{yy} + cy^{-1}z_y = 0$ .
- LaPatra, J. W. 7215: (with Myers, B. R.) Algorithms for circuit enumeration.
- Lapudus, Leon. 5042: (with Gurel, Okan) Stability via Liapunov's second method.
- Lapin, G. P. 2998: (with Borisovič, A. I.) On the interpolation of entire functions.
- Lapkovskii, A. K. 844: On geometry in Lorentz space.
- Laplaza, Miguel L. 6329: Existence of inductive limits. 6387: (with Durand, Felipe) Characterizations of the relations of Green in certain semigroups.
- Lappan, Peter. 6462: A property of angular cluster sets.
- Laptev, G. F. See Teleman, C., #2215.
- Laptev, G. I. 3223: Boundary value problems for second order differential equations in Hilbert space with a variable selfadjoint operator.
- Laptsinskii, V. N. 1910: A certain inequality.
- Lardy, L. J. 3366: On the identity in a measure algebra.
- Larin, S. V. 4191: (with Loiko, N. V.) Periodic abelian groups isotopic to Stein quasigroups.

- Larisse, Jean. 978: Sur une convergence presque sûre d'un produit infini de matrices stochastiques ayant le même nombre de classes ergodiques.
- Larman, D. G. 392: On the realization of distances within coverings of an  $n$ -sphere. 4548: On locally  $C$ -convex sets.
- Larsen, Kenneth. 3690: (with Nakai, Mitsuru and Sario, Leo) Formes harmoniques principales sur un espace de Riemann.
- Larsen, Max D. 2736: (with McCarthy, P. J.) Overrings of almost multiplication rings.
- Larsen, R. 6689: Measures with separable orbits.
- Larson, Robert E. 6102: (with Kockler, William G.) Dynamic programming applications to water resource system operation and planning.
- Larson, Ronald V. 2406: (with Kovach, Ladis D.) Approximations with rational polynomials.
- LaRue, James A. 639: The relationship of a regular matrix summability method to its submethods.
- LaSalle, Joseph P. 1722: An invariance principle in the theory of stability.
- Lashenov, K. V. 650: †The convergence of a Lagrange interpolation process with nodes which are the roots of orthogonal polynomials of weight  $(1-x^2)^p \cdot |x|^q$  and an estimate of the corresponding Lebesgue constants.
- Lasher, S. 355: On Peano derivatives in  $L^p(E_n)$ .
- Lasota, A. 2456: A discrete boundary value problem. 499: (with Łuczynski, Marian) A note on the uniqueness of two point boundary value problems. I.
- Lassner, G. 3822: (with Uhlmann, A.) On positive functionals on algebras of test functions for quantum fields.
- Lastman, G. J. 4966: A modified Newton's method for solving trajectory optimization problems.
- Lattès, Robert. 4687: Non-well-set problems and the method of quasi reversibility.
- Laub, Elizabeth. 1054: (with Cox, D. R.) A note on the graphical analysis of multidimensional contingency tables.
- Laurent, P. J. 673: Théorèmes de caractérisation d'une meilleure approximation dans un espace normé et généralisation de l'algorithme de Rémès. 1855: Approximation uniforme de fonctions continues sur un compact avec contraintes de type inégalité.
- Lausch, Hans. 4157: Zur Theorie der Polynompermutationen über endlichen Gruppen.
- Lauver, R. M. 7058: (with Balch, H. T.; Dale, J. C. and Eddy, T. W.) Estimation of the mean of a stationary random process by periodic sampling.
- LaValle, Irving H. 1150: On cash equivalents and information evaluation in decisions under uncertainty. II. Incremental information decisions. 1151: On cash equivalents and information evaluation in decisions under uncertainty. III. Exchanging partition- $J$  for partition- $K$  information.
- Lavis, A. 6400: Construction des groupes complètement réguliers.
- Lavole, J. L. 6493: (with Mongeau, G.) A note on the generalized hypergeometric differential equation.
- Lavrenčuk, V. P. 587: (with Ivasilen, S. D.) Solvability of the Cauchy problem and of some boundary value problems for general parabolic systems in the class of increasing functions.
- Lavrik, A. F. 2705: Functional and approximate functional equations for Dirichlet functions.
- Lavrov, I. A. 60: Utilization of arithmetic progressions of  $k$ th order for construction of bases of an algebra of primitively-recursive functions.
- Lawley, D. N. 4913: Some new results in maximum likelihood factor analysis.
- Lawson, H. Blaine, Jr. 5886: Stretching phenomena in mappings of spheres.
- Lawton, William H. 1002: Concentration of random quotients.
- Laxton, R. R. 5185: Linear  $p$ -adic recurrences.
- Laycock, P. J. 1039: (with Silvey, S. D.) Optimal designs in regression problems with a general convex loss function.
- Layman, P. T. 4781: A note on products of spaces with generalized compactness properties.
- Lazer, A. C. 1700: (with Hastings, S. P.) On the asymptotic behavior of solutions of the differential equation  $y^{(4)} = p(t)y$ .
- Leader, S. 2162: Kimber's theorem on weighted sets. 5845: On metrizable precompact proximity spaces.
- Leavitt, W. G. 2801: Sets of radical classes. 4114: Type radicals.
- Lebed', G. K. 3758: Quadrature formulas with smallest remainder estimate on certain function classes.
- Lebedev, N. A. 1598: (with Aleksandrov, I. A.) On a variational method in classes of functions representable by means of Stieltjes integrals. 5369: (with Smirnov, V. I.) ★Functions of a complex variable: Constructive theory. 4271: (with Tamrazov, P. M.) Inverse approximation theorems on closed sets of the complex plane.
- Lebedev, V. I. 7109: The method of characteristics for the solution of the kinetic equation. 1065: (with Baburin, O. V.) The computation of tables of roots and weights of Hermite and Laguerre polynomials for  $n = 1(1)101$ .
- Lebedeva, E. N. 4567: Linear operators.
- Leblanc, Noël. 764: Classification des algèbres de Banach associées aux opérateurs différentiels de Sturm-Liouville. 5617: Transformation de Hankel et calcul symbolique sur les algèbres de transformées de Fourier à poids.
- Lecouturier, P. 271: Quelques propriétés des catégories hofmanniennes.
- Ledger, A. J. 2149: (with Yano, Kentaro) Almost complex structures on tensor bundles.
- Leduc, P.-Y. 4148: Catégories semi-simples et catégories primitives.
- Lee, Boo-sang. 2981: On regularly branched three-sheeted covering Riemann surfaces.
- Lee, Elvin J. 142: Amicable numbers and the bilinear diophantine equation.
- Lee, Richard. 4989: Stability of the permanent rotations of a self-excited rigid body.
- Lee, Shing-meng. 1839: (with Shih, Fu) On a family of Lototsky transformations. 640: (with Lai, Hang-chin and Liu, Wei-nung) A note on  $W^{(n,0)}$  summability.
- Lee, T. D. 3816: (with Wick, G. C.) Space inversion, time reversal, and other discrete symmetries in local field theories.
- Lee, Yu-lee. 2803: A characterization of Baer lower radical property. 3539: Characterizing the topology by the class of homeomorphisms. 4796: Homeomorphisms on manifolds.
- Lee Hyung Won. See Yi Hyōng-wōn.
- Leela, S. 521: (with Lakshmikantham, V.) Comparison principle and Liapunov's second method. 5517: (with Lakshmikantham, V.) Parabolic differential equations and conditional stability.
- Lefebvre, Jean. 6583: Propriétés des algèbres d'automorphismes de certaines structures presque symplectiques.
- Lefèvre, Claude. 6120: (with Cotsaftis, Michel) Un critère de stabilité pour des systèmes à structure périodique ou presque périodique. 6121: (with Cotsaftis, Michel) Une condition de stabilité globale des systèmes non linéaires.
- Lefschetz, Solomon. 1723: ★Stability of nonlinear automatic control systems.
- Legrand, Solange. 6345: Expansions  $p_3$ -structurées.
- Legras, J. 7101: (with Montet, Melle C.) Méthode de discrétisation fine application au problème de la chaleur.
- Lehmann, Daniel. 5890: Platitude des fibrés vectoriels dont la base est un espace de lens.
- Lehmer, D. H. 171: (with Lehmer, Emma) The cyclotomy of hyper-Kloosterman sums.
- Lehmer, Emma. 2718: On the divisors of the discriminant of the period equation. 171: (with Lehmer, D. H.) The cyclotomy of hyper-Kloosterman sums.
- Lehnigk, S. H. 4340: Liapunov's direct method and the number of zeros with positive real parts of a polynomial with constant complex coefficients.
- Leibenson, Z. L. 3400: Linear transformations containing a complex parameter.
- Leighton, Walter. 506: Some elementary Sturm theory. 1685: A method for determining upper bounds for the smallest eigenvalue in a class of singular problems. 2235: Remarks on certain Eulerian constants. 5488: (with Anderson, Larry R.) Liapunov functions for autonomous systems of second order.
- Leikin, A. M. See Krulikovskii, N. N., #18.
- Leindler, L. 1886: †On a problem of strong summability of Fourier series.
- Leipnik, Roy. 2922: (with Oberg, R.) Subvex functions and Bohr's uniqueness theorem. 2286: (with Reed, Frank) Monoidal composition of distributions.

- Leitman, Marshall J. 5002: (with Fisher, George M. C.) On continuum thermodynamics with surfaces.
- Leitmann, G. 5492: On the stability of solutions of a non-linear, non-autonomous equation. 5750: A note on absolute extrema of certain integrals. 6813: (with Blaquière, A.) Some geometric aspects of optimal processes. I. Problems with control constraints.
- Leja, Franciszek. 4239: ★Complex functions.
- Lekšvill, N. L. 2462: (with Aleksidze, M. A.; Arveladze, N. M. and Pertaja, K. V.) The solution of boundary value problems by means of nonorthogonal series.
- Lemlein, V. G. 5182: The distribution of class numbers  $h$  of real quadratic fields  $K(\sqrt{p})$  with prime discriminant  $p \equiv 1 \pmod{4}$  over residue classes  $(4k+1)$  and  $(4k+3)$ .
- Lemlein, V. G. See Lemlein, V. G.
- Lenormand, Claude. 5285: (with Jacques, Alain; Lentin, André and Perrot, Jean-François) Un résultat extrémal en théorie des permutations.
- Lentin, André. 2556: (with Gross, Maurice) ★Notions sur les grammes formelles. 5285: (with Jacques, Alain; Lenormand, Claude and Perrot, Jean-François) Un résultat extrémal en théorie des permutations.
- Lenz, Hanfried. 4698: Zur Axiomatik der absoluten Geometrie des Raumes.
- Lenzing, Helmut. 6314: Direkte Produkte von freien Moduln.
- Leonard, Henry S., Jr. 4168: On finite groups whose  $p$ -Sylow subgroup is a T.I. set.
- Leonard, Philip A. 2730: On constructing quartic extensions of  $GF(p)$ .
- Leone, F. C. 7051: (with Chakravarti, I. M. and Alanan, J. D.) Relative efficiency of Mood's and Massey's two-sample tests against some parametric alternatives. 7052: (with Chakravarti, I. M. and Alanan, J. D.) Exact power of some quick tests based on Mood's and Massey's statistics. 7053: (with Govindarajulu, Z. and Hayman, G. E.) Extension of Mood's test to  $c$ -samples: Null distribution and exact power against exponential and rectangular alternatives.
- Leont'ev, A. F. 664: Mean-periodic functions. 4442: A certain method for solving an equation of infinite order.
- Leont'ev, E. K. 2120: Čebyšev compositions. 4744: On the general theory of compositions in spaces with affine connection.
- Le Page, Claude. 1099: Sur quelques conditions entraînant la commutativité dans les algèbres de Banach.
- Lepin, A. Ja. See Lepins, A.
- Lepins, A. 4320: (with Myškins, A. D.) An approach to nonlinear boundary value problems for ordinary differential equations. 5463: (with Myškins, A. D.) The existence of a solution of a certain nonlinear boundary value problem for an  $n$ th-order ordinary differential equation.
- Lepistö, Timo. 1346: An upper bound for the first factor of the class number of the cyclotomic field  $k(\exp(2\pi i/p^h))$ .
- Leptin, H. 5328: Verallgemeinerte  $L^1$ -Algebren und projektive Darstellungen lokal kompakter Gruppen. I, II. 6397: (with Robertson, L.) Every locally compact map group is unimodular.
- Lesca, J. 5158: Démonstration d'une conjecture de P. Erdős.
- Lescarret, Christian. 5676: Applications "prox" dans un espace de Banach.
- Lesev, V. D. 6267: The group of principal units of totally ramified extensions of a regular local field. 6268: On a theorem of Emmy Noether.
- Lesieur, L. See Séminaire P. Dubreil, M.-L. Dubreil-Jacotin, L. Lesieur et C. Pisot, #6139a-b.
- Leschin, M. M. 1494: The approximation of semigroups.
- Leutbecher, Armin. 4018: Über die Hecke'schen Gruppen  $G(\lambda)$ .
- Le Van, Marijo O. 6295: Extending the Möbius  $\mu$ -function to certain classes of  $M$ -square matrices.
- Leviatan, D. 649: Tauberian constants for generalized Hausdorff transformations. 5570: Moment problems and quasi-Hausdorff transformations.
- Levin, A. Ju. 3140: Passage to the limit for nonsingular systems  $\dot{X} = A_n(t)X$ . 2213: (with Lifšic, E. A.) On M. A. Krasnosel'skiĭ's generalized contraction principle. 1168: (with Gorštein, V. M.; Kac, B. P. and Mitjagin, B. S.) The solution of a game on graphs.
- Levin, A. L. See Erohin, V. D., #3011.
- Levin, B. Ja. 1894: (with Ovčarenko, I. E.) The prolongation of Hermite-positive functions defined on a strip.
- Levin, B. V. 5172: (with Fainleib, A. S.) The asymptotic behavior of sums of multiplicative functions. 5174: (with Fainleib, A. S.) Application of certain integral equations to questions of the theory of numbers.
- Levin, F. 288: Factor groups of the modular group.
- Levin, G. 6275: (with Vasconcelos, W. V.) Homological dimensions and Macaulay rings.
- Levin, J. J. 712: A nonlinear Volterra equation not of convolution type.
- Levin, Martin. 6283: On the group of rational points on elliptic curves over function fields.
- Levin, Simon A. 1813: On some nonlinear boundary problems for the equation of minimal surfaces.
- Levin, V. I. 4220: (with Godunova, E. K.) A general class of inequalities containing Steffensen's inequality.
- Levin, V. L. 7170: Infinite dimensional analogs of a linear programming problem, and the saddle point theorem.
- Levine, Jack. 6875: (with Zund, Joseph) Sur la caractéristique d'Euler-Poincaré et les classes de Pontrjagin pour quelques variétés riemanniennes de signature quelconque.
- Levine, Norman. 2186: On the equivalence of compactness and finiteness in topology. 177: (with Salzer, Herbert E.) Proof that every integer  $\leq 452,470,650$  is a sum of five numbers of the form  $Q_n = (x^2 + 5n)/6$ ,  $x \geq 0$ .
- Levinger, B. W. 6566: A folk theorem in functional differential equations.
- Levinson, Norman. 1162: Linear programming in complex space. 1338: Summing certain number theoretic series arising in the sieve.
- Levit, R. J. 1846: Irreducibility of polynomials with low absolute values.
- Levitan, B. M. 1818: Eigenfunction expansion in a finite region. 2039: Investigation of the Green's function of a Sturm-Liouville equation with an operator coefficient. 1817: (with Ramn, A. G.) The asymptotic behavior of eigenvalues for the case when the potential depends on the parameter. 6782: (with Suvorčenkova, G. A.) Sufficient conditions for discreteness of the spectrum of a Sturm-Liouville equation with operator coefficient.
- Levitin, E. S. 4688: The correctness of restrictions and stability in extremal problems. II.
- Levitin, R. S. 3098: On Frommer's first discrimination problem in the case of non-uniqueness. 3099: Theorems of uniqueness and non-uniqueness of Frommer's first problem of perturbations from an Osgood class.
- Lévy, A. 3914: (with Kreisel, G.) Reflection principles and their use for establishing the complexity of axiomatic systems. 57: (with Solovay, R. M.) Measurable cardinals and the continuum hypothesis.
- Levy, I. S. 1410: (with Johnson, R. E.) Regular elements in semiprime rings.
- Lévy, Paul. 958: Observations sur la note précédente. 1898: Fonctions caractéristiques positives. 6146: Les mathématiques.
- Lévy-Nahas, Monique. 346: Deformation and contraction of Lie algebras.
- Lewin, Jacques. 362: On Schreier varieties of linear algebras.
- Lewin, L. 5001: The solution of singular integral equations over a multiple interval and applications to multiple diaphragms in rectangular wave-guide.
- Lewin, M. 1543: An inequality and its application to a property of Mahler's partition functions.
- Lewis, Gene. 4609: Free actions on  $S^n \times S^n$ .
- Lewis, H. R., Jr. 2452: (with Stovall, E. J., Jr.) Comments on a floating-point version of Nordsieck's scheme for the numerical integration of differential equations.
- Lewis, Robert M. 607: (with Bleistein, Norman) Space-time diffraction for dispersive hyperbolic equations. 1806: (with Cohen, Jack K.) A ray method for the asymptotic solution of the diffusion equation.
- Lewis, T. O. 3622: The factorisation of the rectangular distribution.
- Lewowicz, Jorge. 5466: (with Massera, José L.) Asymptotic directions of the solutions of linear differential equations.
- Lewykyj, R. J. 3704: (with Clatworthy, W. H.) Comments on Takeuchi's table of difference sets generating balanced incomplete block designs.
- Leśański, T. 4407: Sur les solutions généralisées des équations quasi-linéaires.



- Llaw, S. K. 3503: (with Teh, H. H.) Embedding a  $T_1$  space in a  $T_1$  group space.
- Li Ch'iao. 6282: On the theorems of Chow and Shimura on the specialization of cycles in algebraic varieties.
- Lienherowicz, André. 2150: Variétés kähleriennes et première classe de Chern. 7136: Ondes de choc et hypothèses de compressibilité en magnétohydrodynamique relativiste.
- Lichtenbaum, Stephen. 6294: Curves over discrete valuation rings.
- Lichtenstein, Leon. 3808: ★Grundlagen der Hydromechanik.
- Lick, Don R. 2962a: Sets of convergence of  $I$ -series. 2962b: Sets of non-uniform convergence of  $I$ -series. 5117: (with Kapoor, S. F. and Kronk, H. V.) On detours in graphs.
- Lickorish, W. B. R. 6940: Homeomorphisms of  $S^p \times S^q$  fixed on  $S^p \cup S^q$ .
- Lidskii, V. B. 3089: (with Sadovniĭ, V. A.) Trace formulas in the case of the Orr-Sommerfeld equation.
- Lieb, Elliott H. 6195: Concavity properties and a generating function for Stirling numbers.
- Lieberman, David I. 5998: Numerical and homological equivalence of algebraic cycles on Hodge manifolds.
- Lieberstein, H. Melvin. 3729: ★A course in numerical analysis.
- Liescher, D.-E. 1148: (with Kreisel, E. and Treder, H.-J.) ★Zur Quantengeometrodynamik.
- Liedl, Roman. 3272: Über gewisse Funktionale im Raum  $C^{0,1}[0, 1]$  und Walsh-Fourierkoeffizienten. 5596: Eine algebraische Herleitung und eine Verallgemeinerung des Satzes von Fine über Gruppen von orthonormalen Funktionen und eine Beschreibung der vielfalterhaltenden Transformationen des Intervalls  $[0, 1]$  auf sich selbst.
- Lifanov, I. K. 4790: The dimension of a product of one-dimensional bicompacts.
- Lifšic, E. A. 721: Fredholm's alternative for the problem of periodic solutions of differential equations with distributed argument. 2213: (with Levin, A. Ju.) On M. A. Krasnosel'skii's generalized contraction principle. 1741: (with Krasnosel'skii, M. A. and Strygin, V. V.) A new method in the problem of periodic solutions of equations with deviating argument.
- Li Gen-dao. See Li Ken-tan.
- Light, R. 2363: (with Tallis, G. M.) The use of fractional moments for estimating the parameters of a mixed exponential distribution.
- Lightstone, A. H. 5081: Group theory and the principle of duality.
- Li Hoang Tu. 5974: An approximate minimax property of the  $R^2$  test.
- Li Ken-tao. 263: On Weyl groups of real semisimple Lie algebras and their application to the classification of maximal solvable subalgebras with respect to inner conjugation.
- Likel, J. 3671: Difference of two ordered observations divided by standard deviation in the case of negatively exponential distribution.
- Lillo, J. C. 3155: The Green's function for periodic differential difference equations.
- Lim, K. L. 3495: (with Drake, D.) Some theorems on the connectedness of generalized topological spaces.
- Limanskii, V. G. 1646: Determination of the zeros of a system of holomorphic functions.
- Lin, S. 5051: (with Kasami, T. and Peterson, W. W.) Some results on cyclic codes which are invariant under the affine group and their applications.
- Lin, Shwu-yeng T. 2188: Generalizations of a theorem concerning semi-locally connected spaces. 3551: Fixed point properties and inverse limit spaces.
- Lin, Y.-F. 1495: The structure of not necessarily perfect automata and their automorphism group. I. 2171: Relations on topological spaces: Urysohn's lemma.
- Lind, D. A. 5140: (with Hoggatt, V. E., Jr.) A primer for the Fibonacci numbers. VI.
- Lindel, Hartmut. 6279: Normale, nicht-perfekte Räume.
- Lindenstrauss, Joram. 1956: On a theorem of Murray and Mackey. 4363: (with Amir, D.) The structure of weakly compact sets in Banach spaces. 6743: (with Pelczyński, A.) Absolutely summing operators in  $L_p$ -spaces and their applications.
- Linder, Jürgen. 1284: (with Kirsch, Arnold) Über nichtadditive reduzierbare Reihungen in endlichen Booleschen Verbänden.
- Lindgren, W. F. 100: An infinite class of hypohamiltonian graphs.
- Lindley, D. V. 7045: The choice of variables in multiple regression. 3693: (with El-Sayyad, G. M.) The Bayesian estimation of a linear functional relationship.
- Lindner, Rolf. 6134: (with Fischer, Klaus and Thiele, Helmut) Stabile stochastische Automaten.
- Lindsey, J. H., II. 6379: On a projective representation of the Hall-Janko group.
- Ling, Chih-bing. 1058: Values of roots of eight equations of algebraic-transcendental type. 1059: (with Young, Shiu-fong) On values of roots of monomial-transcendental equations.
- Linkovski, Josef. 5149: Sharpening of a theorem of Wierich.
- Linnik, Ju. V. 5960: On certain connections between algebraic geometry and statistics. 6239: Sur une application du théorème d'André Weil à la théorie des caractères de Dirichlet. See also Wilks, Samuel S., #2345.
- Linnik, Yu. V. See Linnik, Ju. V.
- van Lint, J. H. 4027: (with Graham, R. L.) On the distribution of  $n!$  modulo 1.
- Lintz, R. G. 5514: Cauchy's problem for generalized differential equations.
- Lions, J. L. 5521: Quelques applications aux problèmes aux limites des distributions et des fonctionnelles analytiques. 6583: On some optimization problems for linear parabolic equations. 6584: (with Balakrishnan, A. V.) State estimation for infinite-dimensional systems. 6617: (with Magones, Enrico) Contrôle optimal et espaces du type de Gevrey.
- Lipiński, J. S. 2915: Une remarque sur la continuité et la connexité.
- Lipkina, Z. S. 2820: Bicomact rings with finite images.
- Lippman, Steven A. 7168: On the set of optimal policies in discrete dynamic programming.
- Lisin, F. S. 5402: A problem of mean square approximation related to the study of generators in the algebra  $\mathbb{P}$ .
- Liskevec, O. A. 3778: The numerical solution of certain ill-posed problems by the method of quasisolutions. 5677: The regularization of linear equations in Banach spaces.
- Lister, W. G. 6335: On variants of Lie triple systems and their Lie algebras.
- Littlewood, J. E. 1606: A "pits effect" for all smooth enough integral functions with a coefficient factor  $\exp(n^2 \alpha i)$ ,  $\alpha = \frac{1}{4}(\sqrt{5} - 1)$ .
- Littman, Walter. 559: Polar sets and removable singularities of partial differential equations. 6631: (with McCarthy, C. and Riviere, N.)  $L^p$ -multiplier theorems. 6682: (with McCarthy, C. and Riviere, N.) The non-existence of  $L^p$  estimates for certain translation-invariant operators.
- Litvinčuk, G. S. 437: (with Hasabov, E. G.) Boundary value problems with shift and conjugation for a system of analytic functions. 5405: (with Zverovič, E. I.) Boundary value problems with shift for analytic functions, and singular functional equations.
- Litvinkov, S. S. 1890: Certain properties of Fourier series in generalized spherical functions.
- Liu, Bede. 7216: (with Meadows, H. E.) A method of time-domain approximation for arbitrary inputs.
- Liu, Jong-ding. 3477: (with Hsiung, Chuan-chih) The group of conformal transformations of a compact Riemannian manifold.
- Liu, Shih-chao. 2606: Application of a general method for dealing with many-one degrees.
- Liu, Teng-sun. 4624: Commutative Banach algebras having finitely many regular maximal ideals. 2959: (with van Rooij, Arnoud) Transformation groups and absolutely continuous measures.
- Liu, Wei-nung. 640: (with Lee, Shing-meng and Lai, Hang-chin) A note on  $W^{(n, \infty)}$  summability.
- Liverani, Francesco. 704: Nuclei di Dirichlet-Jordan.
- Lišic, A. H. 2833: Direct decompositions with distinguished sub-objects in categories.
- Li Wu-sheng. 5467: Integral curves of the differential equation  $dy/dx = \sum_{i=0}^n a_i y^i x^{n-i} / \sum_{i=0}^n b_i y^i x^{n-i}$ , I.
- Ljajin, E. S. 6226: Defining relations of the semigroups of all directed transformations of a finite ordered set.
- Ljubič, Ju. I. 4506: (with Tkačenko, V. A.) A new proof of the fundamental theorem on functions periodic in the mean.
- Ljubimov, A. N. 6067: (with Babenko, K. I.; Voikresenskii, G. P. and Rusanov, V. V.) ★Three-dimensional flow of ideal gases around smooth bodies.
- Lloyd, E. K. 91: Pólya's theorem in combinatorial analysis applied to enumerate multiplicative partitions.

- Lo, C.-Y. 3368: A class of polynomials in self-adjoint operators in spaces with an indefinite metric.
- Lo, Chi Yeung. 451: Singular behavior of zonal hyperspherical harmonic series.
- Lobodzins'ka, I. G. 602: Boundary value problems for the equation  $\Delta^m u = 0$ .
- Lobodzinskaja, I. G. See Lobodzins'ka, I. G.
- Lochak, G. See Kahan, Théo, #1127.
- Locher, Franz. 2444: (with Zeller, Karl) Approximationsgüte und numerische Integration.
- Loeb, Henry L. 5576: Un contre-exemple à un résultat de M. Claude Gilormini.
- Loeb, Peter A. 3039: An axiomatic treatment of pairs of elliptic differential equations.
- Logunov, B. V. 792a: Estimation of the accuracy of the method of perturbations. 792b: The theory of perturbations for a countable number of parameters. 3383: A generalized eigenvalue problem.
- Logunov, A. I. 542: (with Logunov, V. I. and Caljuk, Z. B.) Estimates of solutions of second order differential equations with retarded argument.
- Logunov, V. I. 542: (with Logunov, A. I. and Caljuk, Z. B.) Estimates of solutions of second order differential equations with retarded argument.
- Loh, Hooi-ling. 2901: On two-component spinor representations of the Lorentz group. 96: (with Teh, H. H.) On the dimension of product graphs. 259: (with Teh, H. H.) Some theorems of groupoid semirings.
- Lolko, N. V. 4191: (with Larin, S. V.) Periodic abelian groups isotopic to Stein quasigroups.
- Loizou, G. 1067: An empirical estimate of the relative error of the computed solution  $\mathcal{E}$  of  $Ax=b$ .
- Lokucievskii, O. V. 593: On the theory of dimension.
- Lomazhe, G. A. 4099: The number of representations of numbers by certain quadratic forms in four variables.
- Lombardo-Radice, Lucio. 2080: Costruzioni di piani non arguesiani a partire da piani di Galois.
- Lomnicki, Z. A. 5950: A note on the Weibull renewal process.
- Lomenaco, Samuel J. 2199: Uncountably many mildly wild non-Wilder arcs.
- London, David. 4241: (with Schwarz, Binyamin) On the radius of discfocality of a class of polynomials.
- London, Hymie. 1313: On the Diophantine equation  $y^2 + p^2 = x^2$ .
- Longo Marcante, Eugenia. 1803: (with Nocilla, Silvio) Sulla risoluzione del problema di Cauchy, con dati sulla linea parabolica, per le equazioni di tipo misto della forma:  $y''Z_{xx} - Z_{yy} = 0$ .
- Longuet-Higgins, M. S. 6976: Modified Gaussian distributions for slightly nonlinear variables.
- Loomis, Lynn H. 2912: (with Sternberg, Shlomo) ★Advanced calculus.
- Loos, Ottmar. 6877: Reflexion spaces of minimal and maximal torsion.
- Lopatin, A. K. 1679: The algebraic reducibility of systems of linear differential equations. I. 4311: The algebraic reducibility of systems of linear differential equations on a finite interval of definition of the independent variable. II.
- Lopatin'skii, Ja. B. 4683: An application of the methods of Marston Morse in the theory of differential equations of elliptic type.
- Lopes Pinto, Antonio J. B. 6664: On a trigonometric identity.
- Lopez-Escobar, E. G. K. 1237: On a theorem of J. I. Malitz. 6168: Remarks on an infinitary language with constructive formulas. 6169: Well-orderings and finite quantifiers.
- Lord, E. A. 2501: The Dirac spinor in six dimensions.
- Lorenc, A. A. See Lorencs, A.
- Lorencs, A. 1452: Representations of sets of solutions of systems of equations with one unknown in a free group.
- Lorenz, Kuno. 1233: Dialogspiele als semantische Grundlage von Logikkalkülen. I.
- Lorenzen, Hans-Peter. 266: Mutationsinvariante Unteralegebren von Jordan-Algebren.
- Lorenzen, P. 25: Constructive mathematics as a philosophical problem.
- Lorimer, P. J. 321: On  $S_2$ -groups and groups of Möbius transformations.
- Los', G. R. 5493: Theorems on the instability of solutions of an nth order linear homogeneous differential equation with periodic coefficients.
- Los', G. A. See Los', G. P.
- Loškarev, B. I. 5714: The formula for the generalized resolvents of a closed Hermitian operator. 5715: Generalized resolvents of Hermitian operators with a non-dense domain of definition.
- Lo Ting-chun. 6533: A qualitative study of the integral curves of the differential equation  $dy/dx = \sum_{0 \leq i+j \leq 2} q_{ij}x^i y^j / \sum_{0 \leq i+j \leq 2} p_{ij}x^i y^j$ . VI. Limit cycles of equations of Type I.
- Loud, W. S. 3092: Self-adjoint multi-point boundary value problems.
- Loupias, G. 3823: (with Miracle-Sole, S.)  $C^*$ -algebres des systèmes canoniques. II.
- Lovász, L. 3962: Über die starke Multiplikation von geordneten Graphen.
- Loveland, L. D. 903: Tame subsets of spheres in  $E^3$ . 3545: Sufficient conditions for a closed set to lie on the boundary of a 3-cell. 4797: Wild points of cellular subsets of spheres in  $S^3$ . II. 3546: (with Burgess, C. E.) Sequentially 1-ULC surfaces in  $E^3$ .
- Lowenthal, Franklin. 5321: On subsemigroups of the projective group on the line. 5427: Transitive subsemigroups of the Möbius group.
- Lowndes, John S. 1881: Some dual series equations involving Laguerre polynomials.
- Lozinakii, S. M. 3598: (with Ladyženskaja, O. A. and Mihlin, S. G.) Vladimir Ivanovič Smirnov: On the eightieth anniversary of his birth.
- Lubkin, Saul. 215: A  $p$ -adic proof of Weil's conjectures.
- Lucas, K. W. 1587: A two-point modulus bound for areally mean  $p$ -valent functions.
- Lucas, W. F. 2532: A game in partition function form with no solution.
- Luccioni, Raul E. 2157: On the existence of measure for sets of linear subspaces in affine spaces.
- Luchian, Tudora. 1428: On some generalized weak algebras of order 2.
- de Lucia, Paolo. 366: Sull'inversione dell'ordine d'integrazione. 4413: Alcune osservazioni sul caso eccezionale del problema di Goursat.
- Lučić, Radomir P. 4216: An improper integral.
- Lučka, A. Ju. 2407: Convergence and stability of the method of least squares. 3369: Estimates of error in variational methods. 6907: The convergence of variational methods.
- Łuczniński, Marian. 499: (with Lasota, Andrzej) A note on the uniqueness of two point boundary value problems. I.
- Ludden, Gerald D. 5808: The prolongation of the holonomy group.
- Ludwig, Garry. 7159: Généralisation des théorèmes de Mariot, Robinson et Chevalier.
- Ludwig, Günther. 5003: Attempt of an axiomatic foundation of quantum mechanics and more general theories. II. 5004: Attempt of an axiomatic foundation of quantum mechanics and more general theories. III.
- Luh, Jiang. 250: On the structure of pre-J-rings.
- Lukas, Eugène. 979: Une caractérisation des processus stables et symétriques. 3623: Contributions to a problem of D. van Dantzig.
- Lukašević, N. A. 5451: On the theory of Painlevé's third equation. 6516: The solutions of Painlevé's fifth equation.
- Luke, Yudel L. 2412: Approximations for elliptic integrals. 6011: (with Fair, Wyman G.) Rational approximations to the generalized Duffing equation.
- Lukin, V. N. 1593: The metric properties of a certain class of mappings of finitely connected plane regions.
- Lumel'skii, Ja. P. 5968: On the question of unbiased estimates.
- Lumer, G. 1982: (with Gamelin, T.) Theory of abstract Hardy spaces and the universal Hardy class.
- Lumer-Naim, Linda. 1642:  $\mathcal{H}^p$  spaces of harmonic functions.
- Lumiste, Ju. G. See Lumiste, Ü.
- Lumiste, Ü. 3475: A connection in a fibred space with homogeneous reductive fibres.
- Lundell, Albert T. 938: Homotopy periodicity of the classical Lie groups.
- Lundqvist, Einar. 3777: (with Kreiss, Heinz-Otto) On difference approximations with wrong boundary values.
- Lüneburg, Heinz. 3433: Kreishomogene endliche Möbiusebenen.
- Luo Ding-jun. See Lo Ting-chun.
- Lupaş, Alexandru. 6647: Some properties of the linear positive operators. II. 6652: (with Cimoca, Gh.) Two generalizations of the Meyer-König and Zeller operator.

- Lupas, Luciana. 6417: A property of the S. N. Bernstein operator.
- Lurçat, François. See Cargèse Lectures in Theoretical Physics: Application of mathematics to problems in theoretical physics, #1125.
- Lurmanavili, A. P. 152: The representation of the natural numbers by quadratic forms with integral square-free variables.
- Lustig, Georges. 6953: Sur les complexes elliptiques fibrés.
- Luther, Norman Y. 2933: A decomposition of measures. 5346: Lebesgue decomposition and weakly Borel measures.
- Luxemburg, W. A. J. 1285: On the existence of  $\sigma$ -complete prime ideals in Boolean algebras.
- Lynch, Robert E. 6029: Generalized trapezoid formulas and errors in Romberg quadrature.
- Lynden, R. C. 4173: (with Ullman, J. L.) Pairs of real 2-by-2 matrices that generate free products.
- Lyness, J. N. 6030: Differentiation formulas for analytic functions. 3749: (with Delves, L. M.) A numerical method for locating the zeros of an analytic function. 4962: (with Delves, L. M.) On numerical contour integration round a closed contour. 1081: (with Ninham, B. W.) Numerical quadrature and asymptotic expansions.
- Lynn, M. Stuart. 2636: On the diameter of a  $p$ -cyclic strongly connected digraph. 106: (with Heap, B. R.) A note on  $p$ -cyclic matrices and digraphs. 1264: (with Heap, B. R.) The structure of powers of nonnegative matrices. I. The index of convergence. 1265: (with Heap, B. R.) The structure of powers of nonnegative matrices. II. The index of maximum density. 3745: (with Timlake, William P.) The use of multiple deflations in the numerical solution of singular systems of equations, with applications to potential theory.
- Lytkin, I. P. 3664: The synthesis of optimal control by means of the method of least squares.
- Lyubimov, A. N. See Ljubimov, A. N.
- Maag, Urs R. 3710: (with Stephens, M. A.) The  $V_{NM}$  two-sample test.
- Maak, Wilhelm. 2988: Erörterung des Begriffes der fastautomorphen Funktion.
- MacCamy, Richard C. 623: (with Greenberg, James M. and Mizel, Victor J.) On the existence, uniqueness, and stability of solutions of the equation  $\sigma(u_{xx}) + \lambda u_{xx} = \rho_0 u$ . 4384: (with Mizel, V. J. and Seidman, T. I.) Approximate boundary controllability for the heat equation.
- MacDonald, John L. 6342: (with Frei, Armin) Coalgebres dans les catégories d'algèbres et structures induites par un triple.
- Machover, Maurice. 363: A curiosity in measure theory.
- Mack, C. 1973: (with Jarratt, P.) A least squares method for Laplace's equation with Dirichlet boundary conditions. 1072: (with Garside, G. R. and Jarratt, P.) A new method for solving polynomial equations.
- Macki, Jack W. 597: (with Wong, James S. W.) Oscillation of solutions to second-order nonlinear differential equations.
- Mackie, A. G. 3909: Some comments on existence and uniqueness theorems in applied mathematics with an application to thin airfoil theory.
- MacLane, S. See Reports of the Midwest Category Seminar, #6341.
- MacLeod, R. A. 6234: On the largest odd divisor of  $n$ .
- Macevicius, E. 2111: On the theory of curves in bicentral three dimensional geometry.
- Macphail, M. S. 5568: (with Chang, S. C.; Snyder, A. K. and Wilansky, A.) Consistency and replaceability for conull matrices.
- Maczyński, M. J. See Kuratowski, K. and Mostowski, A., #5100.
- Madan, M. L. 4947: Class number and ramification in fields of algebraic functions.
- Madansky, Albert. 4930: (with Barlow, Richard E.; Proshan, Frank and Scheuer, Ernest M.) Statistical estimation procedures for the "burn-in" process.
- Maddox, B. H. 248: Absolutely pure modules.
- Maddox, I. J. 641: On Kuttner's theorem. 1840: Matrix transformations in an incomplete space.
- Mader, W. 5124: Homomorphiesätze für Graphen.
- Madsen Barbosa, Ruy. 4437: Proofs of a generalization of a summation formula of Boole.
- Maergois, L. S. 3045: Some properties of convex sets and their applications to the theory of the growth of convex and entire functions.
- Maass, G. 3100: Asymptotisches Verhalten der Lösungen eines speziellen Typs nichtlinearer Differentialgleichungen zweiter Ordnung. 4398: Zur Bestimmung des Restgliedes von Lie-Reihen.
- Magdziarz, J. 1979: On some spaces of infinitely differentiable functions.
- Magenes, Enrico. 6817: (with Lions, Jacques Louis) Contrôle optimal et espaces du type de Gevrey.
- Magill, Kenneth D., Jr. 4783: The lattice of compactifications of a locally compact space. 5863: Restrictive semigroups of closed functions.
- Magnus, W. See Schwarz, Ralph J., #2401 and Bradley, Lee C.; Aggarwal, H. R.; Ablow, C. M.; Wood, Van E. and Glasser, M. L., #2398.
- Mahamunulu, D. M. 3689: Some fixed-sample ranking and selection problems.
- Mahon, Gilles. 6150: La vie scientifique au milieu du XVIII<sup>e</sup> siècle: Introduction à la publication des lettres de Bouguer à Euler.
- Mahkamov, B. 5929: (with Vinokurov, V. G.) Lebesgue subspaces of the space of trajectories of a random process.
- Mahler, K. 1322: Applications of a theorem by A. B. Shidlovski. 2694: An unsolved problem on the powers of  $3/2$ .
- Mahowald, Mark. 918: On the metastable homotopy of  $O(n)$ . 6922: (with Gitler, S.) The geometric dimension of real stable vector bundles. 2244: (with Milgram, R. James) Embedding real projective spaces. 3581: (with Gitler, S. and Milgram, R. James) The nonimmersion problem for  $RP^n$  and higher-order cohomology operations.
- Maia, Maria Grazia. 4681: Un'osservazione sulle contrazioni metriche.
- Maier, Wilhelm. See Böhm, Johannes, #3895.
- Malkov, E. V. 4204: (with Šilov, G. E.) The matrix of an automorphism of a torus of countable dimension.
- Maiti, M. 447: A note on the integral equation methods in potential theory.
- Maitre, J. F. 6021: Approximation de rang donné dans un espace de matrices.
- Maity, M. 6064: Diffraction of SH-waves by a half-plane.
- Majindar, Kulendra N. 3939: On some methods for construction of b.i.b. designs.
- Majone, Glandomenico. 2273: Generalizzazione di un esempio di Dieudonné sulle probabilità subordinate. 2274: Alcune questioni topologiche connesse alla teoria delle stime di Bayes.
- Majumdar, K. C. 3666: Characteristic function and moments of the distribution of storage of finite dam with exponential input and of the outflows.
- Makarov, B. M. 4224: An example of a singular measure equivalent to its convolution square.
- Maksimov, V. M. 3610: Convergence of the products of independent random variables, taking values in an arbitrary finite group. 5904: Necessary and sufficient conditions for the convergence of the convolution of non-identical distributions on a finite group.
- Maksimova, L. L. 2585: On models of the calculus  $E$ . 5130: Topological spaces and quasi-ordered sets.
- Mal, A. K. 7126: Diffraction of elastic waves by a penny-shaped crack.
- Malahovskii, V. S. 3464: Manifolds of  $p$ -dimensional quadrics in  $n$ -dimensional projective space.
- Malaise, Michel. 6035: Détermination d'une solution sous forme de série, d'un domaine de convergence et d'une majoration de l'erreur.
- Mal'cev, A. I. 6231: A strengthening of the theorems of Shupecki and Jablonakii. See also Aleksandrov, P. S.; Erkov, Ju. L.; Kargaplov, M. I.; Kur'min, E. N.; Smirnov, D. M.; Talmanov, A. D. and Širšov, A. I., #19 and Academician Anatolii Ivanovič Mal'cev, #23.
- Mal'cev, I. A. 29: A function of the algebra of logic.
- Malik, Henrik John. 2392: Exact moments of order statistics from the Pareto distribution. 7024: Exact distribution of the product of independent generalized gamma variables with the same shape parameter.
- Malinaki, Kazimierz. 5626: Trigonometrical quasi-polynomials.
- Malkin, S. A. 2944: An example of two metrically nonisomorphic ergodic automorphisms with the same simple spectrum.
- Mallavin-Bramet, Marie-Paule. 2804: Largeurs d'anneaux et de modules. 6276: Une caractérisation des  $K$ -algèbres géométriquement régulières.
- Mallows, C. L. 6977: An inequality in constrained random variables.



- Malone, J. J., Jr. 1416: Near-rings with trivial multiplications.
- Maloo, H. B. 3969: Integral involving products of Bessel functions.
- Malviya, B. D. 6677: The absolute Riesz summability of Fourier series.
- Malyšev, A. V. 159: The Fourier coefficients of modular forms.
- Mamašev, S. 5749: Analytic continuability of the solution of a certain nonlinear operator equation in a Banach space.
- Mampel, K. L. 1274: Algebraische Behandlung einiger Färbeaufgaben auf der Kugel.
- Mamuzić, Z. P. 2163: Extension du principe de prolongement des identités aux applications des espaces semi-topogènes. 3496: A note on the product of connected neighborhood spaces.
- Mamylov, D. I. 1710: Periodic solutions of quasilinear nonautonomous systems with several degrees of freedom in the case of resonance.
- Manara, Carlo Felice. 2568: Oscar Chisini. 2986: (with Nicola, P. C.) Sui poliedri convessi.
- Manaster, Alfred B. 67: Higher-order indecomposable isols.
- Manca, Paolo. 5339: Sulla chiusura convessa in  $R^n$  sul corpo dei reali e sul corpo dei razionali.
- Manelli, Julian D. 4684: Calculus of variations problems with both end-points variable.
- Mandelbrojt, Solem. 5607: ★Fonctions entières et transformées de Fourier. Applications.
- Mandelker, Mark. 6761: Prime ideal structure of rings of bounded continuous functions.
- Mandl, Petr. 1184: Analytical methods in the theory of controlled Markov processes. 1185: Control of the Wiener process with restricted number of switchings. 7016: (with Iosifescu, M.) Application des systèmes à liaisons complètes à un problème de réglage.
- Mandžavidze, G. F. 6466: A boundary value problem of linear conjugacy in general form with shifts. 6467: A boundary value problem of linear conjugacy with shift and its connection with the theory of generalized analytic functions.
- Manevič, I. Z. 4332: Existence of periodic solutions of a system of three differential equations.
- Manfredi, Bianca. 4323: Studio dell'andamento della soluzione di un problema di Meccanica non lineare.
- Mangad, Moshe. 350: Some limiting values and two error estimation procedures for power series approximations.
- Mangani, Piero. 44: Sulla quantificazione simultanea nelle algebre cilindriche.
- Mangeney, Marguerite. See Anneaux de Gorenstein, et torsion en algèbre commutative, #1435.
- Mangeron, Demetre. See Mangeron, Demetrio.
- Mangeron, Demetrio. 1750: Rappresentazione delle funzioni di Green spettanti ai domini poligonali rettilinei semplicemente connessi. 3730: Problematika attuale spettante al metodo di collocazione. I. 5627: Théorie et applications du calcul symbolique à  $n$  variables de Laplace et de Laplace-Picone à l'étude des modèles mathématiques. 6625: Nouvelles classes de fonctions relatives aux équations polyvibrantes et l'extension de la conjecture de Lorch concernant les propriétés de monotonie d'ordre supérieur de certaines fonctions de Sturm-Liouville. 6722: Contributions to the study of the polyvibration equation. I. Method of numerical calculation for a class of non-linear boundary problems. 6810: Sur le rapport des valeurs moyennes des carrés de deux dérivées totales d'ordre consécutif. 6811: Sur une classe d'équations fonctionnelles attachées aux problèmes extrémaux correspondant aux systèmes polyvibrants. 6723: (with Krivošev, L. E.) Contributions to the study of the polyvibration equation. II. Qualitative behavior of the solutions for a class of non-linear integro-differential boundary problems.
- Mangeron, Dumitru Ion. See Mangeron, Demetrio.
- Manheim, Jerome H. 2561: ★The genesis of point set topology.
- Manl, Peter. 3443: Zwei kombinatorisch-geometrische Sätze vom Typus Sperner-Tucker-Ky Fan.
- Manin, Ju. I. 1373: Rational surfaces over perfect fields. 1374: Rational surfaces over perfect fields. II. 6285: (with Šafarevič, I. R.; Averbuh, B. G.; Valnberg, Ju. R.; Žiženko, A. B.; Moisezon, B. G.; Tjurina, G. N. and Tjurin, A. N.) ★Algebraische Flächen.
- Manjarres, Victor. 430: Polynomial bases for compact sets in the plane.
- Mann, Avino'am. 305: Finite groups with maximal normalizers.
- Mann, Nancy R. 5963: ★Results on statistical estimation and hypothesis testing with application to the Weibull and extreme-value distributions. 5969: Tables for obtaining the best linear invariant estimates of parameters of the Weibull distribution.
- Manocha, H. L. 1663: Bilinear and trilinear generating functions for Jacobi polynomials. 4299: Some generating functions. 5431: Integral representations for Appell's functions of two variables. 5441: A generating function. 472: (with Sharma, Bhagirath Lal) Some formulae by means of fractional derivatives. 4298: (with Sharma, Bhagirath Lal) Some formulae for Laguerre polynomials.
- Manohar, R. 7086: (with Turnbull, C.) On a modification of Romberg quadrature.
- Manuceau, J. 1137: Étude de quelques automorphismes de la  $C^*$ -algèbre du champ de bosons libres. 1138:  $C^*$ -algèbre de relations de commutation.
- Manwell, A. R. 3810: On locally supersonic plane flows with a weak shock wave.
- Maravall Casesnovas, Dario. 3361: Generalized homology, cohomology and exterior differential algebra.
- Marchi, Ezio. 2533: Pseudo-saddle-points for non-zero-sum two-person simple and generalized games. 7181: Remarks on generalized  $n$ -person games. 7182: A game-theoretical approach to some situations in opinion making.
- Marcinkowska, H. 753: On the generalized vanishing of functions belonging to a Sobolev space.
- de Marco, Giuseppe. See De Marco, Giuseppe.
- Marčuk, G. I. 6042: Some application of splitting-up methods to the solution of mathematical physics problems. 7067: (with Kuznetsov, Ju. A.) On the question of optimal iteration processes.
- Marcus, F. 5801: Congruences de droites à groupes continus de déformations ou collinéations projectives en elles-mêmes. 6850: Sur les surfaces  $R$  projectivement applicables sur leurs transformées  $F$ .
- Marcus, M. B. 5930: Hölder conditions for Gaussian processes with stationary increments.
- Marcus, Moshe. 4396: On removable singular sets for solutions of elliptic equations.
- Marcus, Solomon. 1293: ★Algebraic linguistics; analytical models.
- Marden, A. 412: (with Earle, C. J.) Projections to automorphic functions.
- Marden, Morris. 415: On the derivative of canonical products. 1562: ★Geometry of polynomials.
- Mardia, K. V. 4914: Correlation of the ranges of correlated samples. 5989: Small sample power of a non-parametric test for the bivariate two-sample location problem in the normal case.
- Maréchal, Odile. 6702: Opérateurs décomposables dans les champs mesurables d'espaces de Hilbert.
- Marék, Ivo. 786: Approximate determination of the spectral radius of a positive indecomposable operator. 4649: (with Groschafková, Zdenka) König's theorem and proof of convergence for the Kellogg iteration process.
- Margaglio, Claudio. 1380: Sopra un problema di immersione per certi fasci algebrici coerenti su una varietà affine. 2739: Alcune proprietà delle  $R$ -coppie in un dominio d'integrità. 4063: Sulla torsione in un prodotto tensoriale di moduli senza torsione. 218: (with Baldassarri Ghezzi, S. and Millevoi, T.) ★Introduzione ai metodi della geometria algebrica.
- Margolis, Beatriz. 3204: The Krein-Krasnoselskii-Kooi condition for a second order hyperbolic partial differential equation with complete second member.
- Margulis, G. A. See Anosov, D. V. and Sinaĭ, Ja. G., #370.
- Marino, Antonio. 3811: Su un problema di diramazione riguardante i moti convettivi in un fluido viscoso.
- Maritz, J. S. 2366: On the smooth empirical Bayes approach to testing of hypotheses and the compound decision problem.
- Markin, Jack T. 3409: A fixed point theorem for set valued mappings.
- Marković, D. 382: Une méthode de comparaison et ses applications. 2432: Factorisation approximative des polynômes par une méthode itérative.
- Markovitch, D. See Marković, D.
- Markus, A. S. 2026: Letter to the editors. 1955: (with Gohberg, I. C.) Stability of bases of Banach and Hilbert spaces.
- Markushevitch, A. I. See Markušević, A. I.
- Markušević, A. I. 3236: ★Recursive sequences. 1616: (with Turnarkin, G. C. and Havinson, S. Ja.) The current status and problems of the theory of boundary properties of analytic functions.

- Marley, A. A. J. 2539: Some probabilistic models of simple choice and ranking.
- Maroni, Pascal. 6495: Sur la forme bi-confluente de l'équation de Heun.
- Marot, Jean. 5290: Une propriété des sur-anneaux plats d'un anneau.
- Marsden, J. E. 533: A correspondence principle for momentum operators. 534: Generalized Hamiltonian mechanics: A mathematical exposition of non-smooth dynamical systems and classical Hamiltonian mechanics. 1735: Hamiltonian one parameter groups: A mathematical exposition of infinite dimensional Hamiltonian systems with applications in classical and quantum mechanics.
- Marsh, Donald J. 5471: (with Kelman, Robert B. and Howard, Henry C.) Nonmonotonicity of solutions of linear differential equations occurring in the theory of urine formation.
- Marshall, E. I. 2824: Bounds for the genus of a Lie algebra.
- Martí, Jürg, T. 1142: Über Anfangs- und Eigenwertprobleme aus der Neutronentransporttheorie.
- Martić, Branislav. 3241: On an incomparability relation.
- Martin, D. H. 2956: Canonical variables and geodesic fields for the calculus of variations of multiple integrals in parametric form.
- Martin, Donald A. 68: Classes of recursively enumerable sets and degrees of unsolvability. 2607: The axiom of determinateness and reduction principles in the analytical hierarchy. 3922: (with Miller, Webb) The degrees of hyperimmune sets.
- Martin, George E. 5780: Parastrophic planar ternary rings.
- Martin, J. F. P. 2786: Some results on matrices which commute with their derivatives.
- Martin, L. H. 4780: A product theorem concerning some generalized compactness properties.
- Martineau, André. 4285: Unité du support d'une fonctionnelle analytique: Un théorème de C. O. Kiselman. 6736: Sur des théorèmes de S. Banach et de L. Schwartz concernant le graphe fermé.
- Martinet, Bernard. 1166: Convergence de certaines méthodes de relaxation en programmation convexe.
- Martinet, Jacques. 6269: Sur les extensions galoisiennes non abéliennes de degré  $2p$  des rationnels. 1347: (with Payan, Jean-Jacques) Sur les bases d'entiers des extensions galoisiennes et non abéliennes de degré 6 des rationnels. 3722: (with Payan, Jean-Jacques) Sur les extensions cubiques non-Galoisiennes des rationnels et leur clôture Galoisienne.
- Martinet, Jean. 6857: Sur quelques singularités de formes différentielles admettant des modules locaux.
- Martini, Giulia. 3423: Sulle trasformazioni puntuali fra due spazi proiettivi ordinari in una coppia regolare in cui esistono soltanto tre direzioni caratteristiche distinte e complanari. 3424: Sulle trasformazioni puntuali fra due spazi proiettivi ordinari in una coppia regolare in cui esistono soltanto tre direzioni caratteristiche distinte e non complanari. 4728: Studio di un problema sulle trasformazioni puntuali fra tre piani mediante la varietà di Segre.
- Martin-Löf, Anders. 1158: Existence of a stationary control for a Markov chain maximising the average reward. 2324: A central limit theorem for Markov chains, and its application to the calculation of transition probabilities in a mine field.
- Martinev, Nikola. 5773: Commutative collineation groups in three-dimensional projective space.
- Martynjuk, D. I. 3154: (with Kozubovskaja, I. G.) On the question of periodic solutions of quasilinear autonomous systems with lag.
- Martynov, I. I. 1724: Sufficient conditions for the regularity and reducibility of systems close to periodic ones.
- Marubayashi, Hidetoshi. 2906: Primary ideal representations in non-commutative rings.
- Maruşciac, I. 3014: Sur certains polynômes d'écart minimum à racines multiples.
- Maruyama, Shigeya. 4211: Conjugate classes of orispherical subalgebras in real semisimple Lie algebras.
- Marx, Morris L. 2193: Whyburn's conjecture for  $C^2$  maps.
- Masani, P. 4231: Orthogonally scattered measures.
- Maschler, Michael. 5035: (with Davis, Morton) Existence of stable payoff configurations for cooperative games. 7183: (with Peleg, Bezalel) The structure of the kernel of a cooperative game.
- Maslov, V. P. 3379: The existence of a solution of an ill-posed problem is equivalent to the convergence of a regularization process. 6783: A criterion for the discreteness of the spectrum of a Sturm-Liouville equation with an operator coefficient (apropos of the article of B. M. Levitan and G. A. Suvorčenkova).
- Maslov, V. V. 6894: On the theory of semisyntopogenous spaces.
- Massera, José L. 5466: (with Lewowicz, Jorge) Asymptotic directions of the solutions of linear differential equations.
- Massey, Gerald J. 6165: Binary connectives functionally complete by themselves in  $S5$  modal logic.
- Massey, W. S. 2226: (with Peterson, F. P.) ★The mod 2 cohomology structure of certain fibre spaces.
- Mastrogiacomo, Pasquale. 1366: Varietà algebriche  $b$ -simmetriche di dimensione  $S_n$ .
- Matagne, R. 3354: (with Étienne, J.) Sur le théorème de structure des fonctionnelles linéaires bornées dans l'espace  $\mathcal{S}$ .
- Matahi, A. M. 1003: On multivariate exponential type distributions.
- Máté, Attila. 77: Generalization of a theorem of W. Sierpiński. 3929: (with Fodor, Géza) Disjoint systems over set ideals (on a generalization of the usual conception of almost disjoint set systems).
- Matei, I. 2121: On certain densities associated with a space  $A_3$  with torsion.
- Mathews, J. C. 2189: A note on well-chained spaces.
- Mathiak, Karl. 1141: (with Stingl, Peter) ★Gruppentheorie für Chemiker, Physiko-Chemiker, Mineralogen.
- Mathur, K. K. 5574: An interpolation process on Chebyshev abscissas.
- Matlis, Eben. 6317: The decomposability of torsion free modules of finite rank.
- Matsohninski, Matthias. 6840: Un théorème relatif aux systèmes de points, définition intrinsèque de la contiguité des points et quelques applications.
- Matsumoto, Kikujū. 422: Some remarks on Picard sets. 6463: Some notes on the cluster sets of meromorphic functions.
- Matsumoto, Makoto. 3469: Connections, metrics and almost complex structures of tangent bundles.
- Matsumoto, T. 3845: (with Shimemura, E.) The Kuhn-Tucker conditions and multistage games.
- Matsumura, Yoshimi. 2969: (with Kakehashi, Tetsujiro) Note on the coefficients of Taylor expansion.
- Matsuoka, Tadayuki. 4062: On the torsion submodule of a module of type  $(F_1)$ .
- Matsuzaka, Kazuo. 233: On the inner product in exterior algebra over euclidean vector space.
- Matsuzaka, Nagi. 5975: Remarks on distinguishability of sets of probability measures.
- Matsuzawa, Tadato. 600: On quasi-elliptic boundary problems.
- Matties, Leon E. 1318: Quadratic spaces of countable dimension over algebraic number fields.
- Mattuck, Arthur. 1367: The field of multisymmetric functions.
- Matvievakaja, G. P. 2565: ★On the history of mathematics of Central Asia in the 9th-15th centuries.
- Matyska, JIH. 6413: On  $\beta$ -integration in  $E_1$ .
- Matzinger, Heinrich. 2735: Another characterisation of the classical fields.
- Maugeri, Antonino. 4420: Sul problema di Cauchy-Dirichlet per le equazioni paraboliche non lineari del secondo ordine in due variabili.
- Maurer, I. Gy. 875: (with Szilágyi, M.) Über gewisse Topologien, die in der Menge der eindeutigen Abbildungen einer Menge in eine Operatorgruppe definiert sind. 1513: (with Szilágyi, M.) Über ein unendliches Produkt von geordneten Systemen beliebiger Mächtigkeit in Operatorgruppen mit Untergruppentopologie. 6362: (with Szilágyi, M.) On the convergence of infinite products defined in the rings of endomorphisms of an abelian group.
- Maurice, M. A. 3531: (with de Groot, J.) On the existence of rigid compact ordered spaces.
- Maurin, L. 2899: Dualitätssatz für automorphe Funktionen auf einer lokal kompakten unimodulären Gruppe. I, II.
- Mauray, Guy. 6318:  $\Sigma$ -compléments d'un module.
- Maus, Eckart. 1356: Die gruppentheoretische Struktur der Verzweigungsgruppenreihen.
- Maus, Jacques. 5515: Estimation de la solution d'un problème aux limites elliptique. 5516: Étude de la solution asymptotique du problème de la couche limite parabolique.
- Mawhin, Jean. 513: Application directe de la méthode générale de

- Cesari à l'étude des solutions périodiques de systèmes différentiels faiblement non-linéaires.
- Maxfield, John E. 6233: Translated geometric progressions. 6236: (with Chawla, L. M. and Muwafi, Amin) On the left-handed, right-handed and two-sided primes.
- Maxson, Carlton J. 6333: On local near-rings.
- Maybee, John S. 2766: Matrices of class  $\mathcal{F}_2$ .
- Mayer, K. H. 4825: (with Hirzebruch, F.)  $\star O(n)$ -Mannigfaltigkeiten, exotische Sphären und Singularitäten.
- Mayer, R. A. 1527: An example of non-localization for Fourier series on  $SU(2)$ . 5330: Localization for Fourier series on  $SU(2)$ .
- Mayoh, B. H. 4151: Groups and semigroups with solvable word problems.
- Mazhar, S. M. 5592: A note on a theorem of Boas.
- Max'ja, V. G. 5678: Closure in the metric of the generalized Dirichlet integral. 3031: (with Burago, Ju. D.) Certain questions of potential theory and function theory for regions with irregular boundaries. 1636: (with Havin, V. P.) Approximation in the mean by harmonic functions. 3030: (with Verbitskii, G. M.) The asymptotics of solutions of the Dirichlet problem near a non-regular frontier. 3894: (with Babiš, V. M.; Bakel'man, I. Ja. and Koselev, A. I.) Solomon Grigor'evič Mihlin: On the sixtieth anniversary of his birth.
- Mazur, B. 6290: (with Artin, M.) Homotopy of varieties in the étale topology.
- Mazurov, V. D. 2787: The committee of a system of convex inequalities.
- McAllister, D. B. 329: A homomorphism theorem for semigroups. 4183: Characters on commutative semigroups.
- McAllister, G. T. 2465: A priori bounds on difference quotients of solutions to some linear uniformly elliptic difference equations.
- McAlpin, John. 2267: (with Eells, James) An approximate Morse-Sard theorem.
- McAuley, Louis F. 6903: The existence of a complete metric for a special mapping space and some consequences.
- McCann, K. 191: (with Williams, K. S.) Cubic polynomials with the same residues (mod  $p$ ).
- McCartan, S. D. 1287: On the  $H$ -ordered interval topology. 5853: Separation axioms for topological ordered spaces.
- McCarthy, Charles A. 735:  $c_p$ . 6681: (with Littman, W. and Rivière, N.)  $L^p$ -multiplier theorems. 6682: (with Littman, W. and Rivière, N.) The non-existence of  $L^p$  estimates for certain translation-invariant operators.
- McCarthy, P. J. 2736: (with Larsen, Max D.) Overrings of almost multiplication rings.
- McConnell, J. C. 4112: Localisation in enveloping rings.
- McCord, M. C. 3018: A theorem on linear operators and the Tietze extension theorem.
- McCormick, Emily. 3770: (with Riley, James D. and Bennett, Morris M.) Numerical integration of variational equations.
- McCoy, Neal H. 4:  $\star$ Introduction to modern algebra.
- McCrimmon, Kevin. 2826: A note on reduced Jordan algebras.
- McCrudden, M. 5323: On product sets in a unimodular group.
- McCulloch, Leon R. 1353: Cyclic extensions without relative integral bases.
- McCune, J. E. 3831: Three-dimensional normal modes of a magnetized Vlasov plasma.
- McDonagh, Sean. 1326: An estimate for trigonometrical sums over square-free integers with a constant number of prime factors.
- McEdilvili, S. A. 6419: Differentiability of functions of two variables.
- McFadden, J. A. 4873: On a class of Gaussian processes for which the mean rate of crossings is infinite.
- McFadden, R. 2885: On homomorphisms of partially ordered semigroups. 2886: Homomorphisms of partially ordered semigroups onto groups.
- McGehee, O. Carruth. 6737: A proof of a statement of Banach about the weak\* topology.
- McGilchrist, C. A. 3696: Plant competition: Three species per pot. 5983: Efficient difference equation estimators in exponential regression.
- McGregor, James. 359: (with Karlin, Samuel) Embedding iterates of analytic functions with two fixed points into continuous groups.
- McIntyre, G. A. 3743: (with Ward, M. M.) Estimators of percentile points of the  $F$  distribution.
- McIntyre, John. 803: (with Palewonsky, Bernard) On optimal control with bounded state variables.
- McKay, C. G. 34: A note on the Jaśkowski sequence. 2578: The non-separability of a certain finite extension of Heyting's propositional logic.
- McKay, John. 1299: (with Bratley, Paul) More amicable numbers.
- McKenzie, Ralph. 1293: On finite groupoids and  $\mathcal{X}$ -prime algebras.
- McLaughlin, H. W. 1544: (with Metcalf, F. T.) Several inequalities for sums, means, and integral norms.
- McLaughlin, T. G. 6176: (with Appel, K. I.) On properties of regressive sets.
- McLenaghan, Raymond. 6661: (with Cahen, Michel) Métriques des espaces lorentziens symétriques à quatre dimensions.
- McLeod, J. B. 608a: The analytic continuation to the unphysical sheet of the resolvent kernel associated with the Schrödinger operator. 608b: The analytic continuation of the Green's function associated with obstacle scattering. 6521: Some examples of wildly oscillating potentials.
- McMillan, D. R., Jr. 4617: Strong homotopy equivalence of 3-manifolds.
- McMillan, J. E. 423: On the geometric theory of functions meromorphic in a disc. 5400: On cluster sets of meromorphic functions. 5397: (with Bagemihl, F.) Radii of uniform boundedness and indetermination of holomorphic functions, and examples in conformal mapping of Jordan regions.
- McMullen, P. 5783: Affinely and projectively regular polytopes.
- McNell, D. R. 7063: Estimating the covariance and spectral density functions from a clipped stationary time series.
- McNulty, Frank. 3672: Applications of Bessel function distributions.
- McQuarrie, Donald A. 4897: Stochastic approach to chemical kinetics.
- McShane, Edward J. 3419: Optimal control theory and stochastic differential equations.
- McWaters, M. M. 6914: Arcs, semigroups, and hyperspaces.
- McWeeny, R. 286:  $\star$ Symmetry: An introduction to group theory and its applications.
- McWilliams, R. D. 736: On the  $w^*$ -sequential closure of a Banach space in its second dual.
- McWorter, William A., Jr. 2849: (with Sehgal, Surinder K.) Normal complements of Carter subgroups.
- Mead, D. G. 7177: (with Hillman, A. P.; O'Keefe, K. B. and O'Keefe, E. S.) A dynamic programming generalization of  $xy$  to  $n$  variables.
- Meadows, H. E. 7216: (with Liu, Bede) A method of time-domain approximation for arbitrary inputs.
- Mecke, J. 3611: Stationäre zufällige Masse auf lokalkompakten Abelschen Gruppen.
- Meder, J. 5601: Some theorems on the Nörlund summability of orthogonal series.
- Medlich, James S. 3872: Orthogonal projection and discrete optimal linear smoothing.
- Medley, Helen I. 4952: (with Varga, Richard S.) On smallest isolated Gerschgorin disks for eigenvalues. II. 4953: (with Varga, Richard S.) On smallest isolated Gerschgorin disks for eigenvalues. III.
- Medvedev, B. V. See Jost, Res. #6090.
- Medvedev, F. A. 17:  $\star$ The development of the theory of sets in the nineteenth century.
- Medvedev, N. V. 6536: Certain criteria for the existence of bounded solutions of a system of differential equations. 6544: A certain method of finding periodic solutions of a system of differential equations.
- de Meersman, R. See De Meersman, R.
- Megina, M. N. 3227: Perturbation of the spectrum of a second order finite difference operator.
- Mehdizadeh, S. L. 1167: Symmetry and self-duality in nonlinear programming.
- Mehrotra, Narain Das. 645: On the absolute harmonic summability of factored infinite series.
- Meier-Selbrian, W. 756: (with Binz, E.) Zur Differentialrechnung in limitierten Vektorräumen.
- Meijer, H. G. 4690: The discrepancy of a  $p$ -adic sequence. 5159:  $\star$ Uniform distribution of  $p$ -adic numbers.
- Meinguet, J. 6012: Optimal approximation and error bounds in seminormed spaces. 6054: Sens et portée des arithmétiques de signification.



- Meir, A. 3243: An inclusion theorem for generalized Cesàro and Riesz means. 4716: (with Moser, L.) On packing of squares and cubes. 652: (with Sharma, A.) Approximation methods by polynomials and power-series. 4212: (with Sharma, A.) Symmetric differences and derivatives.
- Meizler, D. G. 4892: A generalisation of Erlang's formulas in queueing theory.
- Mejzler, D. See Meizler, D. G.
- Mel'ë, I. O. 3867: (with Pyhova, T. A. and Uskov, G. V.) Multidimensional statistical linearization of functions containing factors of power, exponential, trigonometric, and  $\delta$ -function type.
- Melik-Adamjan, F. È. 1690: On the theory of matrix accelerants and spectral matrix functions of canonical differential systems.
- Meller, N. A. 2470: (with Dorodnicyn, A. A.) Some approaches to solving stationary Navier-Stokes equations.
- Mel'nik, S. I. 6707: Solution of integral equations of the first kind in  $L_2$ .
- Mel'nik, T. O. 5541: A certain composite problem for hyperbolic and parabolic equations of higher order.
- Mel'ts, I. O. See Mel'ë, I. O.
- Melnak, Z. A. 3954: A note on homogeneous dendrites.
- Mene, P. 4568: The continuity of a superposition operator acting in normed products of spaces.
- Mendelson, Bert. 2159: ★Introduction to topology.
- Mendelson, E. See Šanin, N. A., #5082.
- Mendès France, M. 2702: Deux remarques concernant l'équirépartition des suites.
- Menegazzo, Federico. 4164: Gruppi nei quali la relazione di quasi-normalità è transitiva.
- Mennicke, J. 1485: On Ihara's modular group.
- Mennicken, Reinhard. 2419: On the convergence of infinite Hill-type determinants.
- Menon, M. V. 1394: Some spectral properties of an operator associated with a pair of nonnegative matrices.
- Men'sov, D. 689: Limits of indeterminacy in measure of  $T$ -means of trigonometric series. 1855: Limits of indeterminacy in measure of trigonometric and orthogonal series.
- Mercer, A. 4893: A queue with random arrivals and scheduled bulk departures.
- Merenkov, V. Z. 1937: (with Ved', Ju. A.) A certain limit boundary value problem for a linear integro-differential equation.
- Merlo, J. C. 5347: (with Panzone, R.) Notes on the measure extension problem.
- Mermet, J. 5057: Synthèse de fonctions Booléennes par des opérateurs en ligne.
- Mermoz, Henri. 6130: Signaux certains et filtrage optimal de Wiener.
- Mei'alkin, L. D. 5964: On the robustness of some characterizations of the normal distribution.
- Meschkowski, Herbert. 1635: Über die Mittelwerte harmonischer Funktionen. 1882: ★Series expansions for mathematical physicists. 2569: ★Probleme des Unendlichen. Werk und Leben Georg Cantors.
- Meshalkin, L. D. See Mei'alkin, L. D.
- Metcalf, F. T. 1824: (with Chu, S. C.) Pointwise bounds for solutions of a class of functional equations. 1544: (with McLaughlin, H. W.) Several inequalities for sums, means, and integral norms.
- Metropolis, N. 7068: (with Stein, M. L. and Stein, P. R.) Stable states of a non-linear transformation.
- Metsänkylä, Tauno. 4046: Über den ersten Faktor der Klassenzahl des Kreiskörpers.
- Metzler, R. C. 5839: (with Friedman, N. A.) On stable topologies.
- Meulenbeid, B. 476: (with van de Wetering, R. L.) On some series of Dougall. 1904: (with Braaksma, B. L. J.) Integral transforms with generalized Legendre functions as kernels.
- Meyberg, Kurt. 1429: Eine Theorie der Freudenthalschen Tripelsysteme. I, II.
- Meyer, G. H. 5017: On a general theory of characteristics and the method of invariant imbedding.
- Meyer, K. R. 936: On computing the index in three dimensions.
- Meyer, Kenneth. See Lefschetz, Solomon, #1723.
- Meyer, P. A. 4877: On the multiplicative decomposition of positive supermartingales. 7000: Intégrales stochastiques. I, II, III, IV.
- Meyer, R. E. 6071: On the approximation of double limits by single limits and the Kaplan extension theorem.
- Meyer, Wolfgang. 939: Kritische Mannigfaltigkeiten in Hilbert-mannigfaltigkeiten. 4751: (with Gromoll, D. and Klingenberg, W.) ★Riemannsche Geometrie im Grossen.
- Meyer, Yves. 3281: Spectres des mesures et mesures absolument continues. 5597: Problème de l'unicité et de la synthèse en analyse harmonique. 6665: Une caractérisation des nombres de Pisot. 6672: Isomorphismes entre certaines algèbres de restrictions.
- Meyer-Nieberg, Peter. 3386: Invariante Unterräume von polynom-kompakten Operatoren.
- Michael, J. H. 1559: The convergence of measures on parametric surfaces. II.
- Michalec, Johannes. 699: (with Arnold, Ludwig) On the norm of stable measures.
- Michel, Horst. 2647: Über Strömungen in Gruppen, speziell in symmetrischen Gruppen. 5364: Wurzeln vollergodischer Automorphismen mit quasidiskretem Spektrum. I.
- Michel, Louis. 5009: Relations entre symétries internes et invariance relativiste.
- Midura, S. 6635: Sur les solutions de l'équation de translation.
- Mielnik, Bogdan. 7156: Geometry of quantum states.
- Mignot, Alain Lucien. 6649: Méthodes d'approximation des solutions de certains problèmes aux limites linéaires. I.
- Mihallov, Krum. 3213: (with Monov, Borislav) A  $T$  problem for an equation of mixed type.
- Mihallov, L. G. 438: Explicit theorems on the solvability of conjugacy problems with derivatives.
- Mihallov, M. D. 706: The finite hypergeometric integral transform.
- Mihallov, V. P. 609: Stabilization of the solution of a certain non-stationary boundary value problem.
- Mihalović, D. 7083: Bemerkung über eine approximative Methode für die Lösung der Keplersgleichung.
- Mihlin, S. G. 7088: Certain properties of polynomial Ritz approximations. 3898: (with Ladyženskaja, O. A. and Lozinskii, S. M.) Vladimir Ivanovič Smirnov: On the eightieth anniversary of his birth. See also Babič, V. M.; Bakel'man, I. Ja.; Kiselev, A. I. and Maz'ja, V. G., #3894.
- Mikeladze, Š. E. 2437: The numerical solution of eigenvalue problems for ordinary linear differential equations with variable coefficients.
- Mikljukov, V. M. 4266: Boundary properties of a certain class of transformations in space.
- Mikusinski, J. 1957: Weak convergence and strong convergence in some spaces of sequences. 5615: Convolution of powers of the modulus.
- Milch, Paul R. 481: A probabilistic proof of a formula for Jacobi polynomials by L. Carlitz. 984: A multi-dimensional linear growth birth and death process.
- Milgram, R. James. 2244: (with Mahowald, M.) Embedding real projective spaces. 3581: (with Gitler, S. and Mahowald, M.) The non-immersion problem for  $RP^n$  and higher-order cohomology operations.
- Miličević, Pavle M. 4581: A representation of Wigner type operators on  $H$ -spaces over the system of quaternions. 4582: Quasi-isometric operators on unitary spaces.
- Millin, I. M. 2970: The method of areas for schlicht functions in finitely connected domains.
- Millar, P. Warwick. 966: Transforms of stochastic processes. 2308: Martingale integrals.
- Miller, Bruce L. 3834: Finite state continuous time Markov decision processes with an infinite planning horizon.
- Miller, J. B. 3365: (with Gamlen, J. L. B.) Averaging and Reynolds operators on Banach algebras. II. Spectral properties of averaging operators.
- Miller, Keith. 1672: Existence theory for certain ordinary differential equations with a monotone singularity. 5527: Exceptional boundary points for the nondivergence equation which are regular for the Laplace equation and vice-versa.
- Miller, Kenneth S. 3228: ★Linear difference equations. 5554: On linear difference equations. 5980: Some multivariate  $t$ -distributions.
- Miller, Raymond E. 6008: (with Karp, Richard M.) Properties of a model for parallel computations: Determinacy, termination, queueing.

- Miller, R. K. 3291: On Volterra integral equations with nonnegative integrable resolvents. 3635: On the linearization of Volterra integral equations.
- Miller, Webb. 3922: (with Martin, D. A.) The degrees of hyperimmune sets.
- Miller, Willard, Jr. 3060: Lie theory and the hypergeometric functions.
- Millevol, T. 218: (with Baldassarri Ghezzi, S. and Margaglio, C.) ★Introduzione ai metodi della geometria algebrica.
- Millham, C. B. 3839: On uniqueness of optimal basic solutions to linear programs.
- Millonik, V. M. 5478: Proof of the existence of irregular systems of linear differential equations with almost periodic coefficients.
- Millman, R. S. 2451: (with Klopfenstein, R. W.) Numerical stability of a one-evaluation predictor-corrector algorithm for numerical solution of ordinary differential equations.
- Mil'man, V. D. 4569: The basis structure of a  $B$ -space and properties of the sphere which are invariant relative to isomorphisms.
- Milne, J. S. 5226: Extensions of abelian varieties defined over a finite field.
- Miller, E. C. 78: Well-quasi-ordering of sequences of ordinal numbers. 83: A combinatorial theorem on systems of sets. 3932: Transversals of disjoint sets. 84: (with Erdős, P. and Hajnal, A.) On sets of almost disjoint subsets of a set.
- Milnor, J. 2227: On characteristic classes for spherical fibre spaces. 2239: ★Topology from the differentiable viewpoint.
- Mine, G. E. 35: Corrections and additions to the article: "On predicate and operator variants of the formation of the theories of constructive mathematics".
- Mine, Henryk. 5240: Some remarks on a paper of Paul Lévy on Hadamard matrices.
- Mine, Hisashi. 3968: (with Osaki, Shunji) Some remarks on a Markovian decision problem with an absorbing state.
- Minlos, R. A. 1387: (with Bernadskii, I. A.) The defect indices of symmetric Jacobian matrices.
- Minton, B. M. 5432: A note on the asymptotic expansion of the second Appell function.
- Moduszevski, J. 6915: (with Rudolf, L.) On projective spaces and resolutions in categories of completely regular spaces.
- Miracle-Sole, S. 1144: (with Gallavotti, G.) Correlation functions of a lattice system. 3823: (with Loupias, G.)  $C^*$ -algebres des systèmes canoniques. II.
- Miranda, Carlo. 6000: Progressi e orientamenti della teoria delle equazioni ellittiche negli ultimi quindici anni.
- Miroľubov, A. A. 1933: A certain class of solutions of a system of integro-differential equations. 2996: A generalization of the asymptotic period of an entire function. 3231: A certain inhomogeneous functional equation. 4272: The completeness of a certain system of functions.
- Miron, R. 6866: (with Cruceanu, V.) Sur les connexions compatibles à une structure métrique ou presque symplectique.
- Mironov, G. A. 2486: (with Krinickii, N. A. and Frolov, G. D.) ★Programming.
- Mirskaja, T. I. 5926: (with Pabedinskaitė, A. S. and Tempelmanas, A.) Hilbert spaces of certain reproducing kernels and the equivalence of Gaussian measures.
- Mirsky, L. 1257: A theorem on common transversals. 1267: Combinatorial theorems and integral matrices. 1268: (with Perfect, Hazel) Applications of the notion of independence to problems of combinatorial analysis.
- Mitlenko, A. S. 6923: (with Buhštaber, V. M.) Elements of infinite filtration in  $K$ -theory.
- Misfeld, Jürgen. 3494: Die Topologie und ihre Bedeutung für die Geometrie.
- Mishra, Babban Prasad. 5567: Corrections to: "Some theorems on strong summability".
- Mishra, R. S. 6884: On almost complex spaces. II. General  $F$ -connection. 3488: (with Mishra, R. B.) The Killing vector and the generalised Killing equation in Finsler space. 5832: (with Pando, H. D.) Certain projective changes in Finsler space. 6889: (with Sinha, R. S.) Congruences of curves through points of a subspace and hypersurface of a Finsler space.
- Mishra, Ramadhar. 473: A note on the real zeros of the basic confluent hypergeometric function.
- Misjurkeev, I. V. 5741: Existence of a continuous branch of eigenvectors of a completely continuous operator acting in a Banach space with two cones.
- Mislín, Guido. 3562: Über Gruppen, die in Cohomologie-Moore-Räumen operieren. 6928: Räume mit Operatorengruppen und Cohomologie.
- Misnik, V. P. 4533: On the theory of integro-differential equations with deviating argument. 5656: Periodic and almost periodic solutions of integro-differential equations. 5474: (with Bykov, Ja. V.) Linear systems of differential equations with periodic coefficients.
- Mišnjakov, N. T. 6468: A problem of the type of Carleman's problem for a multiply connected region in the class of generalized analytic functions.
- Misra, R. B. 3488: (with Mishra, R. S.) The Killing vector and the generalised Killing equation in Finsler space.
- Mišustin, B. A. 1090: On solving the Dirichlet problem for Laplace's equation by the method of statistical tests.
- Mitalauskas, A. 3634: Letter to the editors.
- Mitchell, A. R. 2471: (with Gourlay, A. R.) Split operator methods for hyperbolic systems in  $p$  space variables.
- Mitchell, Ann F. S. 1030: Exponential regression with correlated observations.
- Mitchell, Toby J. 1037: (with Draper, Norman R.) Construction of the set of 256-run designs of resolution  $\geq 5$  and the set of even 512-run designs of resolution  $\geq 6$  with special reference to the unique saturated designs.
- Mitjagin, B. S. 1168: (with Gerštein, V. M.; Kac, B. P. and Levin, A. Ju.) The solution of a game on graphs.
- Mitjuk, I. P. 3002: Extremal properties of meromorphic functions in multiply connected domains. 4244: A certain subordination principle for regular functions.
- Mitra, S. C. 1891: On a theorem in the generalised Fourier transform.
- Mitra, Sujit Kumar. 4920: On a generalised inverse of a matrix and applications.
- Mitrinović, D. S. 5342a: An inequality concerning the arithmetic and geometric means. 5342c: Inequalities concerning the elementary symmetric functions. 339: (with Vasić, P. M.) Monotonicity of the ratio of two means. 5342d: (with Vasić, P. M.) Généralisation d'un procédé fournissant des inégalités du type de Rado. 5342e: (with Vasić, P. M.) Inégalités du type de Rado concernant des fonctions symétriques. 5342f: (with Vasić, P. M.) Généralisation d'une inégalité de Henrici. 5342g: (with Vasić, P. M.) Inégalités pour les fonctions symétriques élémentaires. 5342i: (with Vasić, P. M.) Une inégalité générale relative aux moyennes d'ordre arbitraire. 6636: (with Vasić, P. M.) On a quadratic functional equation.
- Mitrohin, B. A. 4984: The application of Euler's polygonal method to the numerical solution of non-linear integro-differential equations.
- Mitropol'skii, Ju. A. See Mitropol'skii, Ju. O.
- Mitropol'skii, Ju. O. 5479: Averaging method in non-linear mechanics. 3141: (with Belan, E. P.) The construction of solutions of almost diagonal systems of linear differential equations by a method which guarantees accelerated convergence. 3899: (with Paranjuk, O. S. and Bogoljubov, A. N.) Isif Zaharovič Štokalo: On his seventieth birthday. 5078: (with Daniljuk, I. I.; Koroljuk, V. S.; Skorohod, A. V. and Jadrenko, M. I.) Isif Il' in Gihman: On the occasion of his 50th birthday. See also History of national mathematics in four volumes. Vol. II. 1901-1917, #3888.
- Mitropolsky, Ju. A. See Mitropol'skii, Ju. O.
- Mitrović, Dragiša. 3293: The homogeneous Hilbert boundary problem in a Banach algebra. II.
- Mittal, K. C. 1665: (with Sharma, Bhagirath Lal) Some new generating functions for Jacobi polynomials. 6498: (with Sharma, B. L.) Some formulae for Lagrange's polynomials. I, II.
- Min, I. M. 508: Contributions sur les zéros des solutions des certaines équations différentielles.
- Miura, Satoshi. 2583: (with Nagata, Shûrô) Certain method for generating a series of logics.
- Miyake, Akihiko. 4878: The subordination and completely monotone mapping.
- Miyamoto, Munemi. 767: (with Tsujikawa, Kunio) A theorem on a multiplication operator in certain function spaces.
- Mizel, Victor J. 2487: (with Coleman, Bernard D.) On the general

- theory of fading memory. 5499: (with Coleman, Bernard D.) On the stability of solutions of functional-differential equations. 3341: (with Sundaresan, K.) Representation of additive and biadditive functionals. 623: (with Greenberg, James M. and MacCamy, Richard C.) On the existence, uniqueness, and stability of solutions of the equation  $\sigma'(u_x)u_{xx} + \lambda u_{xx} = \rho_0 u_t$ . 1110: (with Gurtin, Morton E. and Williams, William O.) A note on Cauchy's stress theorem. 4384: (with MacCamy, R. C. and Soidman, T. I.) Approximate boundary controllability for the heat equation.
- Mixi, François. 7102: Champ laplacien plan à conditions de Cauchy.
- Mleiva, Miroslav. 6100: Über das Enthaltensein des klassischen Aussagenkalküls in den nicht-klassischen Aussagenkalkülen.
- Mode, Charles J. 2335: Some corrections to my paper: "A stochastic calculus and its application to some fundamental theorems of natural selection".
- Mohanty, R. 1887: (with Patnaik, J. N.) On the absolute  $L$ -summability of a Fourier series. 690: (with Ray, B. K.) Correction to: "On the non-absolute summability of a Fourier series and the conjugate of a Fourier series by a Nörlund method". 6678: (with Ray, B. K.) On the absolute logarithmic summability of a derived Fourier series.
- Moise, Edwin E. 2200: A monotonic mapping theorem for simply connected 3-manifolds.
- Moiseev, N. N. 1179: Numerical methods of optimal control theory using variations in the state space.
- Molleson, B. G. 6285: (with Safarevič, I. R.; Averbuh, B. G.; Vainberg, Ju. R.; Žiženko, A. B.; Manin, Ju. I.; Tjurina, G. N. and Tjurin, A. N.) ★Algebraische Flächen.
- Mojleson, B. G. See Molleson, B. G.
- Mokobodski, Gabriel. 1643: (with Sibony, Daniel) Principe du minimum et maximalité en théorie du potentiel. 1973: (with Sibony, Daniel) Cônes de fonctions continues.
- Molčanov, I. M. 1822: Certain methods for the solution of difference equations. 3779: Certain explicit iteration methods of solving the multidimensional biharmonic equation.
- Moler, C. B. 2420: (with Payne, L. E.) Bounds for eigenvalues and eigenvectors of symmetric operators.
- Moler, Nancy. 4699: (with Suppes, Patrick) Quantifier-free axioms for constructive plane geometry.
- Molino, Pierre. 6864: Application des structures infinitésimales quotient à l'étude des problèmes d'existence pour les  $G$ -structures; définition d'un espace universel pour les  $G$ -structures.
- Möller, Herbert. 3428: Beiträge zur Integration der Schläffischen Differentialform für Simplexinhalt in nichteuklidischen Räumen höherer Dimension.
- Monahov, V. N. 592: (with Antoncev, S. N.) Boundary value problems with discontinuous boundary conditions for quasilinear elliptic systems of  $2m$  ( $m \geq 1$ ) first order equations.
- Monastyrnyi, P. I. 4067: The application of the method of orthogonal transformations to boundary value problems with unseparated conditions for systems of differential equations.
- Monastyrnyi, V. I. 249: Locally nilpotent subgroups in fields of finite rank. 317: The question of solvable subgroups in fields.
- Mond, Bertram. 1169: On the direct sum and tensor product of matrix games. 2527: (with Hanson, Morgan A.) A class of continuous convex programming problems. 3413: (with Hanson, Morgan A.) Symmetric duality for variational problems. 4689: (with Hanson, Morgan A.) Duality for control problems. 7178: (with Hanson, Morgan A.) Symmetric duality for quadratic programming in complex space. 5582: (with Shisha, O.) The degree of convergence of sequences of linear positive operators.
- Mongeau, G. 6493: (with Lavoie, J. L.) A note on the generalized hypergeometric differential equation.
- Monjardet, B. 2610: Quasi-groupes finis, quasi-groupes orthogonaux, ensemble complet orthogonal.
- Monna, A. F. 4549: On the moment problem in non-archimedean analysis. 5672: Linear topological spaces over non-archimedean valued fields.
- Monov, Borislav. 3213: (with Mihailov, Krum) A  $T$  problem for an equation of mixed type.
- Montagnana, Manfredo. 1690: Operatori estremanti e problemi ai limiti. 1691: Operatori estremanti e problemi ai limiti.
- Monteiro, António. 37: Construction des algèbres de Lukasiewicz trivalentes dans les algèbres de Boole monadiques. I.
- Montet, Melle C. 7101: (with Legras, J.) Méthode de discrétisation fine application au problème de la chaleur.
- Montgomery, H. L. 184: A note on the large sieve.
- de Monvel, Louis Boutet. See Boutet de Monvel, Louis.
- Monzingo, M. G. 5192: A generalization of Hilbert's Theorem 90.
- Moody, Robert V. 5261: A new class of Lie algebras.
- Moon, J. W. 103: A tree counting problem. 3064: (with Alspach, Brian and Goldberg, Myron) The group of the composition of two tournaments. 5109: (with Moser, L.) On the correlation function of random binary sequences.
- Moór, Arthur. 3489: Einige Bemerkungen über Kurven und Grundelementfolgen in allgemeinen Räumen. 6690: Über eine Verallgemeinerung der Schouten-Haantjeschen Räume.
- Moore, Albert H. 7029: (with Harter, H. Leon) Maximum-likelihood estimation, from doubly censored samples, of the parameters of the first asymptotic distribution of extreme values.
- Moore, Calvin C. 2951: Invariant measures on product spaces.
- Moore, H. G. 4113: (with Pierce, S. J. and Yaqub, Adil) Commutativity in rings of zero divisors.
- Moore, J. B. 2546: (with Anderson, B. D. O.) A generalization of the Popov criterion.
- Moore, R. C. 6916: Continuity and composition of functions.
- Moore, Ramon E. 7069: ★Interval analysis.
- Moore, Robert T. 4669: ★Measurable, continuous and smooth vectors for semigroups and group representations.
- Moran, Daniel A. 2333: (with Doyle, P. H.) A short proof that compact 2-manifolds can be triangulated.
- Moran, M. J. 564: (with Gaggioli, R. A.) Reduction of the number of variables in systems of partial differential equations, with auxiliary conditions.
- Moran, P. A. P. 5955: (with Daley, D. J.) Two-sided inequalities for waiting time and queue size distributions in  $GI/G/1$ .
- Moran, Siegfried. See Schubert, Horst, #2160.
- Moran, W. 4225: The additivity of measures on completely regular spaces.
- Morawetz, Cathleen S. 617: Mixed equations and transonic flow.
- Mordasova, G. M. 5608: Integral Fourier transforms and some of their applications.
- Mordell, L. J. 2684: Equations  $ax^2 + bx^2y + cxy^2 + dy^2 = e$  with no rational solutions. 5148: The Diophantine equation  $x^4 + y^4 = 1$  in algebraic number fields.
- Moreira dos Santos, Nathan. 859: On the conjugate locus of a Riemannian manifold.
- Morgado, José. 3965: Note on the system of closure operators of the ordinal product of partially ordered sets.
- de Morgan, Augustus. See De Morgan, Augustus.
- Morgan, G. J. 1104: (with Dingle, R. B.) WKB methods for difference equations. I, II.
- Morgantini, E. 6104: ★Appunti di programmazione lineare. 6105: Su una interpretazione proiettiva e su una rappresentazione affine della dualità della programmazione lineare.
- Morgunov, B. I. 4334: (with Volosov, V. M.) Methods of computation of stationary resonant oscillatory and rotary motions of certain nonlinear systems.
- Mori, Shin-ichi. 1589: (with Kusunoki, Yukio) Some remarks on boundary values of harmonic functions with finite Dirichlet integrals.
- Mori, Tōru. 2646: On subalgebras of a certain kind of separable Boolean algebras.
- Mori, Toshiro. 2333: (with Hatori, Hirohisa) A renewal type theorem on continuous-time  $(J, X)$ -processes.
- Morikawa, Hisaaki. 209: On osculating systems of differential equations of type  $(N, 1, 2)$ .
- Morikawa, Ryozo. 188: On the unit group of an absolutely cyclic number field of degree five.
- Morimoto, Akihiko. 6365: Prolongations of  $G$ -structures to tangent bundles.
- Merita, Kliti. 257: The endomorphism ring theorem for Frobenius extensions. 3517: Some properties of  $M$ -spaces.
- Morožan, T. 4864: Stability of stochastic discrete systems. 6125: Stability of controlled systems with random parameters.



- Morozov, S. F. 5748: (with Košelev, V. N.) Sufficient conditions for the existence of discontinuous solutions for the simplest integral in the calculus of variations. I. 5749: (with Košelev, V. N.) Sufficient conditions for the existence of discontinuous solutions for the simplest integral in the calculus of variations. II. 6744: (with Plotnikov, V. I.) Integral inequalities of Wirtinger type.
- Morozova, E. A. 6992: (with Čencov, N. N.) Lévy's random fields.
- Morris, J. L. 1101: (with Gourlay, A. R.) Deferred approach to the limit in non-linear hyperbolic systems. 3785: (with Gourlay, A. R.) Finite-difference methods for nonlinear hyperbolic systems. II.
- Morris, K. W. 3649: (with Darroch, J. N.) Some passage-time generating functions for discrete-time and continuous-time finite Markov chains.
- Morris, P. D. 4563: (with Blatter, J. and Wulbert, D. E.) Continuity of the set-valued metric projection.
- Morrison, David D. 2415: Optimization by least squares.
- Morse, Marston. 6962: Focal sets of regular manifolds  $M_{n-1}$  in  $E_n$ . 6963: Bowls,  $f$ -fiber bundles, and the alteration of critical values.
- Mortimer, Halina. 944: Consistency condition of two probabilistic postulates.
- Morucci, Bernard. 949: Existence de l'espérance mathématique d'une variable aléatoire. Extension aux moments d'ordre quelconque.
- Moschovakis, Yiannis N. 1247: Many-one degrees of the predicates  $H_n(x)$ .
- Mosco, Umberto. 1966: Approximation of the solutions of some variational inequalities.
- Moser, Jürgen. 4382: A rapidly convergent iteration method and non-linear differential equations. 6060: Lectures on Hamiltonian systems.
- Moser, L. 4716: (with Meir, A.) On packing of squares and cubes. 5109: (with Moon, J. W.) On the correlation function of random binary sequences.
- Mosher, Robert E. 3569: Some stable homotopy of complex projective space. 3223: (with Tangora, Martin C.) ★Cohomology operations and applications in homotopy theory.
- Mosjagin, V. V. 548: A two-point boundary value problem for a differential equation in a locally convex space. 552: A control problem for an implicit differential equation in a Banach space. 5504: A boundary value problem for a differential equation with lagging argument in a Banach space.
- Moskalenko, A. I. 312: Central extensions of abelian groups by means of abelian groups.
- Moskowitz, Martin. 5327: (with Grosser, Siegfried) Representation theory of central topological groups.
- Moskvitina, I. I. 4949: A method for the error estimate of iterative solutions of systems of linear algebraic equations.
- Moss, R. M. F. 6411: (with Roberts, G. T.) A creeping lemma.
- Mosteller, Frederick. 6004: Association and estimation in contingency tables.
- Mostert, Paul S. 6398: (with Hofmann, Karl H.) One dimensional coset spaces.
- Mostowski, Andrzej. 58: On models of Zermelo-Fraenkel set theory satisfying the axiom of constructibility. 292: On the decidability of some problems in special classes of groups. 293: Computational algorithms for deciding some problems for nilpotent groups. 5100: (with Kuratowski, K.) ★Set theory.
- Mozner, Zenon. 2934: (with Urbanek, Léonard) Comparaison de la rarefaction logarithmique d'un ensemble et d'un sous-ensemble.
- Motomiya, Kanji. 3471: A study on almost contact manifolds.
- Mott, J. L. 1357: (with Gilmer, R. W., Jr.) On proper overrings of integral domains.
- Moursund, D. G. 4940: Computational aspects of Chebyshev approximation using a generalized weight function. 1074: (with Taylor, G. D.) Optimal starting values for the Newton-Raphson calculation of inverses of certain functions.
- Moy, Shu-teh C. 5933: The continuous part of a Markov operator.
- Moyer, R. D. 1681: The adjoints of ordinary differential operators.
- Moser, Ju. See Moser, Jürgen.
- Mozzamas, Jan. 6081: ★Applications of the theory of groups in contemporary physics. Part I: Outline of the fundamental concepts of the theory of groups and algebraic topology. 6622: The solution of the generalized Klein-Gordon equation.
- Mrowka, Michael. 3565: Über Homotopiegruppen, die der Čechschen Homologie zugeordnet sind.
- Mrowka, S. 2165: Further results on  $E$ -compact spaces. I.
- Mučník, B. A. 3906: Letter to the editors.
- Mueller, Bruno J. 255: The classification of algebras by dominant dimension.
- Muenzenberger, T. B. 3552: On the proximate fixed-point property for multifunctions.
- Müftüoğlu, Saffet. 7132: Eine neue Abbildungsfunktion zur konformen Abbildung von Schaufelgittern.
- Muhamadiev, E. 713: (with Pokorný, Ju. V.) Positive solutions of nonlinear integral equations.
- Muhin, A. B. 4853: Convergence to the uniform distribution.
- Muhin, Ju. N. 1514: Semimodular compact groups.
- Mukherjee, A. 3612: Random operators on Lusin probability spaces.
- Mukunda, N. 1130: Unitary representations of the homogeneous Lorentz group in an  $O(2, 1)$  basis. 2902: Unitary representations of the Lorentz groups: Reduction of the supplementary series under a noncompact subgroup. 5008: (with Kuriyan, Jacob G. and Sudarshan, E. C. G.) Master analytic representations and unified representation theory of certain orthogonal and pseudo-orthogonal groups.
- Muldowney, James S. 3125: (with Burton, T. A.) A generalized Floquet theory.
- Mullender, P. 1319: On lattice coverings and inextensible star bodies.
- Müller, Heinrich N. 674: Zur Eindeutigkeit bei der linearen Approximation im allgemeinen sowie Tschebyscheffschen Fall.
- Müller, Manfred. 4470: Punktweise und gleichmäßige Approximation durch Gammaoperatoren.
- Müller, O. 3840: Lineare Optimierung unter Unsicherheit.
- Müller, P. F. 6058: (with Geller, E.) Über die Herstellung von Höhenkarten und perspektivischen Reliefdarstellungen von Funktionen einer komplexen Veränderlichen mittels elektronischer Rechanlagen.
- Müller, Reinhard. 4296: Integrals and series involving Bessel functions. I.
- Müller, V. F. 1525: (with Kihlberg, A. and Halbwachs, F.) Unitary irreducible representations of  $SU(2, 2)$ .
- Müller, Wolf Dietrich. 6537: Beschränktheitsätze für die Lösungen eines Systems von zwei Differentialgleichungen. 6538: Über die Beschränktheit der Lösungen einer nichtlinearen Differentialgleichung zweiter Ordnung.
- Mullin, A. A. 143: On Möbius' function and related matters.
- Mumford, David. 4085: (with Oort, Frans) Deformations and liftings of finite, commutative group schemes.
- Munn, W. D. 5316: Regular  $\omega$ -semigroups.
- Muntean, Ioan. 5490: Erratum: "Contributions à l'étude qualitative des oscillations non linéaires. Oscillations libres". 6898: Sur la convergence quasiuniforme.
- Murakami, Riehirō. 4570: On Banach function spaces.
- Muramatsu, Tosinobu. 6745: On imbedding theorems for Sobolev spaces and some of their generalizations.
- Muratov, L. M. 3121: The asymptotic expansion and stability of solutions of first order differential equations.
- Murav'eva, G. P. 4633: Maximal abelian subrings in an approximately finite factor.
- Murdershwar, M. G. 1545: On the maximum correlation between functions.
- Murdoch, B. H. 3655: Simple tests for recurrence or transience of infinite sets in random walks on groups.
- Murgescu, Viorel. 4745: Invariants of parallel transport in 4-dimensional spaces with torsion. II.
- Muroya, Yoshiaki. 4959: Practical monotonous iterations for non-linear equations.
- Murphy, Gattan P. 6825: Lines in a planar space.
- Murphy, W. D. 1089: Numerical analysis of boundary-layer problems in ordinary differential equations.
- Murray, J. D. 6582: Singular perturbations of a class of nonlinear hyperbolic and parabolic equations.
- Murtazaev, D. 1802: The index of a problem with oblique derivative for a degenerate equation of composite type.
- Murthy, T. S. Bhanu. See Bhanu Murthy, T. S.

- Murthy, V. K. 4931: ★A new method of estimating the Weibull shape parameter.
- Murty, U. S. R. 108: On some extremal graphs. 5110: Diameter of a (0, 1)-matrix.
- Mursov, N. V. 5037: The solution of some dynamic tug-of-war and pursuit games. 1171: (with Petrosjan, L. A.) The  $n$ -person tug of war game.
- Musaev, V. M. 1912: Convergence of Picard's successive approximations to the solution of multidimensional integral equations.
- Musialek, J. 1814: On a certain property of the equation  $\Delta^n u + ku = 0$ . 3032: On homogeneous polyharmonic polynomials.
- Musielak, J. 6426: (with Orlicz, W.) Notes on the theory of integral. II.
- Mulicki, Dorde. 4991: Formulation covariante des transformations canoniques dans la theorie des champs.
- Muřinaka, Agneska. See Muszyńska, Agneska.
- Muřinski, Ełi. See Muszyński, Jerzy.
- Mustafi, Chandan K. 2395: Inference problems about parameters which are subjected to changes over time. 4900: On the proportion of observations above sample means in a bivariate normal distribution.
- Muřari, D. H. 879: (with Šerstnev, A. N.) A certain problem on triangle inequalities for random normed spaces.
- Mustař, P. 611: Un théorème d'unicité de la solution du problème de Cauchy pour l'équation linéaire parabolique du second ordre. 6478: (with Boboc, Nicu) Sur l'équicontinuité de certaines familles de fonctions continues.
- Musti, Romolo. 4707: Alcune proprietà delle trasformazioni puntuali tra spazi proiettivi ordinari che posseggono rette quasi-ipercharacteristiche.
- Muszyńska, Agneska. 4343: On "fundamental" periodic solutions of a certain nonlinear system with two degrees of freedom. 4346: On the stability of the motion of rotating systems of a certain class. 4350: Forced oscillations in a certain mechanical system with two degrees of freedom.
- Muszyński, Jerzy. 4344: On pseudo-linear equations with partly negative dissipation. 4345: Some criteria for the boundedness of solutions of a second order equation.
- Muřđ, Hideo. 1588: (with Hiromi, Genkō) On the existence of analytic mappings. II.
- Muřylin, A. F. 6265: Connected complete locally bounded fields. Complete not locally bounded fields.
- Muřafi, Amin. 6236: (with Chawla, L. M. and Maxfield, J. E.) On the left-handed, right-handed and two-sided primes.
- Mycielski, Jan. 361: Algebraic independence and measure. 3986: Some compactifications of general algebras. 5306: Rotations and words. 1238: (with Ryll-Nardzewski, C.) Equationally compact algebras. II. 127: (with Fajtlowicz, S.; Holsztyński, W. and Weglorz, B.) On powers of bases in some compact algebras.
- Myers, B. R. 7215: (with LaPatra, J. W.) Algorithms for circuit enumeration.
- Myers, Donald E. 5411: Some subspaces of analytic functions.
- Myers, Max H. 2378: (with Schneiderman, Marvin A. and Armitage, Peter) Boundaries for closed (wedge) sequential  $t$  test plans.
- Myhre, J. M. 3714: (with Saunders, Sam C.) Comparison of two methods of obtaining approximate confidence intervals for system reliability.
- Myrberg, P. J. 4256: Über ganze Funktionen mit rationalem Multiplikationstheorem.
- Myřkin, V. I. 6294: Countable abelian groups of rank 1.
- Myřki, A. D. 4329: (with Ĺepina, A.) An approach to nonlinear boundary value problems for ordinary differential equations. 5463: (with Ĺepina, A.) The existence of a solution of a certain nonlinear boundary value problem for an  $n$ th-order ordinary differential equation. 6519: (with Šaršanov, A. A.) The construction of the set of initial points of the integral lines contained in a half-plane for a linear Hamiltonian system of two equations with periodic coefficients.
- Na, Hwa Sung. 945: (with Rapoport, Anatol) A formula for the probability of obtaining a tree from a graph constructed randomly except for an "exogamous bias".
- Na, Tsung Yen. 4303: Further extension on transforming from boundary value to initial value problems.
- Nadler, Sam B., Jr. 4571: Differentiable retractions in Banach spaces.
- Nadžafov, H. M. 593: Uniqueness of the solution of problem  $T$  for an equation of Tricomi type with discontinuous coefficients.
- Nagabhushanam, K. 5927: (with Bhagavan, C. S. K.) Non-stationary processes and spectrum.
- Nagae, A. V. 955: Limit theorems for a series scheme. 3635: Integral theorems with allowance for large deviations when Cramér's condition is violated. 4898: (with Starcev, A. V.) A threshold theorem for a certain model of an epidemic.
- Nagahara, Takasi. 4124: On  $N$ -groups of automorphisms in division rings. 4126: (with Tominaga, Hisao) Algebraic extensions of simple rings. II. 4125: (with Nakajima, Atsushi and Tominaga, Hisao) Algebraic extensions of simple rings. I.
- Nagal, Takeaki. 1009: On a biased maximum likelihood estimator related to the estimations of the initial probabilities of a certain Markov chain.
- Nagao, Hisao. 3663: Monotonicity of the modified likelihood ratio test for a covariance matrix.
- Nagaraj, Muppinaia. 658: On some conformal properties of recurrent Riemannian spaces.
- Nagarajan, K. R. 3202: Groups acting on Noetherian rings.
- Nagasawa, Masao. 6587: A limit theorem of a pulse-like wave form for a Markov process.
- Nagashima, Hidetake. 4782: (with Sakamoto, Yukio and Yajima, Kin'ichi) On compactness in ranked spaces. 4774: (with Yajima, Kin'ichi and Sakamoto, Yukio) On the sets of points in the ranked space.
- Nagata, Shūrō. 2583: (with Miura, Satoshi) Certain method for generating a series of logics.
- Nagel, B. 2502: (with Kolm, A.) A generalized edge of the wedge theorem.
- Nageswara Rao, K. 5166: Some identities involving an extension of Ramanujan's sum.
- Nagle, J. F. 6213: (with Temperley, H. N. V.) Combinatorial theorems for graphs on a lattice.
- Nagmetkanov, K. 683: (with Suřbaev, S.) A generalized complete orthonormal system in the space  $L_2[0, 1]$ .
- Nagmur, B. N. 7036: Large sample tests of the hypotheses of "no three factor interaction" in contingency tables.
- Nainpally, Somashekhar. 4784: (with Warrack, Brian) Clusters and ultrafilters.
- Nakagami, Yoshiomi. 5015: A remark on probabilistical definiteness for self-adjoint operators.
- Nakagawa, Hisao. 933: A note on theorems of Bott and Samelson. 5891: Riemannian manifolds with many geodesic loops.
- Nakagawa, Ryosuke. 6927: (with Ochiai, Shōji) On the dimension of generators of a polynomial algebra over the mod  $p$  Steenrod algebra.
- Nakai, Mitsuru. 5530: Infinite boundary value problem. 3399: (with Sario, Leo) Border reduction in existence problems of harmonic forms. 3600: (with Larsen, Kenneth and Sario, Leo) Formes harmoniques principales sur un espace de Riemann. See also Rodin, Burton and Sario, Leo, #5378.
- Nakai, Yoshikazu. 209: Notes on differential theoretic characterization of regular local rings.
- Nakajima, Atsushi. 4125: (with Nagahara, Takasi and Tominaga, Hisao) Algebraic extensions of simple rings. I.
- Nakamura, Akira. 2586: A remark on the truth-value stipulation for the modal system  $M'$ .
- Nakamura, Masahiro. 3303: ★Introduction to functional analysis. 5739: (with Kasahara, Isamu) A minimal property for an operator of Hilbert-Schmidt class.
- Nam, Jun-mo. 5992: (with Chapman, D. G.) Asymptotic power of chi square tests for linear trends in proportions.
- Namba, Kanji. 1252:  $\aleph_0$ -complete cardinals and transcendence of cardinals. 2598: On measurable cardinals.
- Namba, Makoto. 2123: On automorphism groups of some contact Riemannian manifolds.
- Naneg, Cornelia. 5337: (with Bădescu, Radu and Sebeșan, Ioan) Intégrales riemannniennes généralisées dans les espaces  $R^n$ .
- Nanu, O. 5813: Sur une connexion liée avec une forme extérieure du troisième degré.
- Nanzetta, Philip. 2644: A representation theorem for relatively complemented distributive lattices.

- Napolitani, Franco. 2968: Sui gruppi risolubili complementati. 2869: Proprietà reticolari dell'insieme dei sottogruppi subnormali. 2998: Sui gruppi finiti privi di sottogruppi supersolubili non speciali.
- Narasimhan, Raghavan. 1344: (with Chandrasekharan, K.) Zeta-functions of ideal classes in quadratic fields and their zeros on the critical line.
- Narasimha Rao, A. 5147: On a technique for obtaining numbers with a multiplicity of generators.
- Narayan, Shanti. 1561: ★Theory of functions of a complex variable.
- Narayana, T. V. 85: Cyclic permutation of lattice paths and the Chung-Feller theorem.
- Narayan Rao, V. V. 7040: Distribution of some multivariate test statistics.
- Naritomi, Takashi. 4865: (with Seguchi, Tsunetami) On certain types of recurrent events.
- Naruki, Isao. 3586: A note on the automorphism group of an almost complex structure of type  $(n, n')$ .
- Nasekovskaja, N. S. 3015: Absolute convergence of an interpolation series.
- Nasrulaev, F. S. 5823: Certain questions on the structure of polyhedral hyperbolic surfaces. 5835: (with Verner, A. L.) Polyhedral bands and the topological structure of hyperbolic polyhedral surfaces with one-to-one spherical representation.
- Năstăsescu, Constantin. 6330: Sur une classe d'anneaux. 6331: Sur une classe d'anneaux réguliers.
- Nastold, H.-J. 469: (with Berger, R.; Kiehl, R. and Kunz, E.) ★Differentialrechnung in der analytischen Geometrie.
- Nataf, R. See Kahan, Théo, #1127.
- Natanson, G. I. 478: (with Agahanov, S. A.) The Lebesgue function of Fourier-Jacobi sums.
- Natarajan, S. 2945: (with Viswanath, K.) On weakly stable transformations.
- Nath, Prem. 1192: Entropy and inaccuracy. 5056: (with Varma, R. S.) Information theory—A survey.
- Nath, Rajeshwar. 2376: (with Krishnaswami, P.) Bias in multinomial classification.
- Naumova, S. I. 6816: (with Gabasov, R.) On sufficient optimality conditions in dynamical systems.
- Naylor, D. 492: (with Dennis, S. C. R.) On a singular eigenvalue problem.
- Nazarov, H. H. 6851: A representation without integrals of some systems of congruences. II.
- Nazarova, L. A. 1402: (with Roiter, A. V.) A sharpening of a theorem of Bass.
- Nélas, Jindřich. 2057: Sur la régularité des solutions variationnelles des équations elliptiques non-linéaires d'ordre  $2k$  en deux dimensions. 3168: ★Les méthodes directes en théorie des équations elliptiques. 2567: (with Kufner, Alois) In memoriam of Jan Kadlec.
- Negrescu, L. 73: (with Păvăloiu, I.) A property of matrix schemes of algorithms.
- Nehari, Zeev. 378: ★Introduction to complex analysis. 379: ★Introduction to complex analysis. 1546: Inverse Hölder inequalities.
- Nekrasova, L. V. 3429: Solvability criterion for ruler and compass construction problems in the elliptic plane. 3430: Constructions with ruler alone in the elliptic plane.
- Nel, L. D. 1974: Theorems of Stone-Weierstrass type for non-compact spaces.
- Nelson, Oscar Tivis, Jr. 114: Subdirect decompositions of lattices of width two.
- Nelson, R. J. 5061: ★Introduction to automata.
- Németh, A. B. 4464: A theorem on the solvability of the problem of lacunary interpolation.
- Nemetz, T. 5919: (with Varga, G.) Extension of limit theorems.
- Nenciu, Elena. 3699: Covariance analysis in unbalanced schemes.
- Neri, Umberto. 5529: Elliptic operators of higher order in divergence form.
- Nersisjan, A. B. 5525: The Cauchy problem for degenerating second-order hyperbolic equations. 583: (with Dirbašjan, M. M.) Fractional derivatives and the Cauchy problem for differential equations of fractional order.
- Nessel, R. J. 4431: (with Berens, H.) Contributions to the theory of saturation for singular integrals in several variables. IV. Product kernels and  $n$ -parameter approximation. 5581: (with Pawelke, A.) Über Favardklassen von Summationsprozessen mehrdimensionaler Fourierreihen. 4489: (with Butzer, P. L. and Schorer, K.) Trigonometric convolution operators with kernels having alternating signs and their degree of convergence.
- Netanyahu, E. 2775: (with Hanani, H. and Reichaw, M.) Eigenvalues of infinite matrices.
- Netter, Mauries. 1160: Programmation dynamique continue et croissance optimale d'un équipement.
- Neubauer, Gerhard. 6799: Homotopy properties of semi-Fredholm operators in Banach spaces.
- Neuberger, J. W. 5344: Quasi-analytic collections containing Fourier series which are not infinitely differentiable.
- Neubiser, J. 3991: (with Felsch, V.) Über ein Programm zur Berechnung der Automorphismengruppe einer endlichen Gruppe.
- Neudecker, H. 1152: On matrix procedures for optimizing differentiable scalar functions of matrices. 1153: On Hermann Enzer's capital growth matrix.
- Neuhaus, Nikolaus. 4312: Lineare Differentialgleichungssysteme in deren Lösung die Funktionen von Paul Appell vorkommen.
- Neukirch, Jürgen. 2724: Über eine algebraische Kennzeichnung der Henselkörper.
- Neuman, F. 4329: Relation between the distribution of the zeros of the solutions of a 2nd order linear differential equation and the boundedness of these solutions.
- Neumann, M. 6311: (with Dragomir, P.) On integral [rational] multiples of the unit element in a ring [field].
- Neuts, Marcel F. 982: Two Markov chains, arising from examples of queues with state-dependent service times. 995: Two queues in series with a finite, intermediate waitingroom. 996: The joint distribution of the virtual waitingtime and the residual busy period for the  $M/G/1$  queue.
- Neuwirth, L. 2231: An algorithm for the construction of 3-manifolds from 2-complexes.
- Nevanlinna, Rolf. 2058: Calculus of variation and partial differential equations. 4250: ★Uniformisierung.
- Neveu, Jacques. 4866: Sur les processus aléatoires gaussiens.
- Newell, Alan C. 6415: An alternative proof of the Poincaré-Bertrand formula for real integrals and its generalization to  $n$  dimensions.
- Newman, D. J. 5577: Efficiency of polynomials on sequences. 653: (with Raymon, L.) A class of curves on which polynomials approximate efficiently.
- Newman, David S. 6126: On the probability distribution of a filtered random telegraph signal.
- Newman, M. F. 5276: (with Kovács, L. G. and Pentony, P. F.) Generating groups of nilpotent varieties.
- Newman, Morris. 150: A diophantine equation. 1461: A bound for the number of conjugacy classes in a group. 2421: Solving equations exactly. 2712: Note on partitions modulo 5. 2848: Bounds for the number of generators of a finite group. 4172: Pairs of matrices generating discrete free groups and free products.
- Newman, T. G. 6738: A characterization of  $l_p$  norms on  $E_n$ .
- Newton, D. 2946: Note on Kolmogorov automorphisms.
- Newton, Isaac. See Mathematical papers of Isaac Newton, #3901.
- Newton, T. D. See Kahan, Théo, #1127.
- Ney, Peter. 3657: (with Lamperti, John) Conditioned branching processes and their limiting diffusions.
- Ng, C. P. 95: (with Teh, H. H.) On finite graphs of diameter 2.
- Nguyen Huu Ngy. 5097: Estimates for sequences of states of Turing machines.
- Nguyen Tam. 4974: Application of the method of straight lines to regions of irregular shape.
- Nguyen The Hoan. 5485: Linear asymptotic equilibrium.
- Nguyen Phong Chau. 6760: (with Khanh, Bui Doan) Sur les opérateurs positifs extrémaux.
- Nguyen Van Hiên. 6091: Hermiticité ou non-hermiticité de l'hamiltonien pour une particule instable en théorie quantique des champs.
- Nicholls, D. F. 3717: Estimation of the spectral density function when testing for a jump in the spectrum.
- Nickel, K. 2433: Die vollautomatische Berechnung einer einfachen Nullstelle von  $F(t)=0$  einschliesslich einer Fehlerabschätzung.



- 3759: Quadraturverfahren mit Fehlerschranken. 4954: (with Apostolatos, N. and Kulisch, U.) Ein Einschliessungsverfahren für Nullstellen.
- Nickel, Paul A. 404: (with Garoutte, Dennis E.) A note on extremal properties characterizing weakly  $\lambda$ -valent principal functions.
- Nickell, R. E. 7129: (with Sackman, J. L.) Variational principles for linear coupled thermoelasticity.
- Nicola, P. C. 2086: (with Manara, C. F.) Sui poliedri convessi.
- Nicolae, Popa. 4340: Produits tensoriels ordonnés.
- Nicolas, Jean-Louis. 6361: Sur l'ordre maximum d'un élément dans le groupe  $S_n$  des permutations.
- Nielsen, B. 4551: Completion in the bidual. 6900: (with Sloyer, C.) On embedding in quasi-cubes. 1972: (with Brace, John W.) Function space representations of completions.
- Nieri, Maria Grazia Cassani. See Cassani Nieri, Maria Grazia.
- Nieto, Joseph I. 5730: On Fredholm operators and the essential spectrum of singular integral operators.
- Nigam, H. N. 3046: Use of the generalized Laplace transform to integral functions of several complex variables. 3047: Some uses of the basic properties of Meijer transform to integral function of two complex variables.
- Niino, Kiyoshi. 405: On finite modifications of two- or three-sheeted covering open Riemann surfaces. 2982: On regularly branched three-sheeted covering Riemann surfaces.
- Nijenhuis, Albert. 1419: Composition systems and deformations of subalgebras. 1420a: The graded Lie algebras of an algebra. 1420b: Correction to: "The graded Lie algebras of an algebra". 1421: (with Richardson, R. W., Jr.) Commutative algebra cohomology and deformations of Lie and associative algebras.
- Nikić, Miodub. 6445: Algebraic properties of the ring  $P_n$ .
- Nikolaus, Johannes. 4307: Über ganze Lösungen linearer Differentialgleichungen.
- Nikolenko, L. D. 487: (with Fešchenko, S. F.) On the asymptotic decomposition of a system of linear differential equations and some applications to the theory of vibrations of mechanical systems.
- Nikol'skii, N. K. 446: Closed ideals in certain algebras of entire functions. 4559: Invariant subspaces of weighted shift operators. 5712: Bases and unicellularity of weighted shift operators.
- Nikol'skii, S. M. 747: Constructive representation of the zero-classes of differentiable functions of several variables. See also Proceedings of the Steklov Institute of Mathematics, #6142.
- Nikulina, N. G. 376: (with Kufarev, B. P.) A connection between the Lebesgue measure of subsets of euclidean space and the  $n$ -dimensional variation of the function distance to a closed set.
- Nilson, E. N. 660: (with Ahlberg, J. H.) Orthogonality properties of spline functions. 661: (with Ahlberg, J. H. and Walsh, J. L.) Extremal, orthogonality, and convergence properties of multidimensional splines. 6650: (with Ahlberg, J. H. and Walsh, J. L.) Cubic splines on the real line.
- Nilsson, Göran. 3706: Optimal stratification according to the method of least squares.
- Ninham, B. W. 1061: (with Lyness, J. N.) Numerical quadrature and asymptotic expansions.
- Nishimoto, Toshihiko. 3122: A turning point problem of an  $n$ -th order differential equation of hydrodynamic type.
- Nishimura, Hajime. 1359: On the unique factorization theorem for formal power series.
- Nishimura, Shōichi. 3662: (with Horibe, Yasuichi) An aspect of logistic law.
- Nishiura, Togo. 3332: Completions of normed linear lattices.
- Nisio, Makiko. 2309: On the extreme values of Gaussian processes.
- Nitsche, J. 3846: Das Problem der Dominanz bei Zwei-Personen-Spielen.
- Nitsche, Johannes C. C. 2104: Contours bounding at least three solutions of Plateau's problem. 6845: Correction to: "Contours bounding at least three solutions of Plateau's problem".
- Niven, Iva. 4024: ★Rational and irrational numbers. 810: (with Zuckerman, H. S.) Lattice points and polygonal area.
- Nizami, Saiyid Abu Talib. 6450: A note on Hurwitz's theorem.
- Nöbauer, Wilfried. 4030: Über eine Klasse von Permutationspolynomen und die dadurch dargestellten Gruppen.
- Nobusawa, Nobuo. 2689: A note on class numbers of lattices in quadratic spaces. 2811: Structure theorems of a module over a ring with a bilinear mapping.
- Nocilla, Silvio. 1803: (with Longo Marcante, Eugenia) Sulla risoluzione del problema di Cauchy, con dati sulla linea parabolica, per le equazioni di tipo misto della forma:  $y'Z_{xx} - Z_{xy} = 0$ .
- Noda, Ryuzaburo. 1454: On 6-fold transitive groups. 1455: A note on multiply transitive groups.
- Noël, Ph. 6022: Une méthode de résolution des grands systèmes linéaires par suritération polynômiale. I.
- Nogi, Tatsuo. 1762: (with Yamaguti, Masaya) An algebra of pseudo difference schemes and its application.
- Noll, Walter. 1123: Materially uniform simple bodies with inhomogeneities.
- Nomachi, Yukio. 7036: A Bayesian approach for testing hypotheses with continuation of observations from a population in a family of populations with one parameter exponential distributions.
- Nomizu, Katsumi. 2138: On hypersurfaces satisfying a certain condition on the curvature tensor. 3827: (with Smyth, Brian) Differential geometry of complex hypersurfaces. II. 2136: (with Yano, Kentaro) Some results related to the equivalence problem in Riemannian geometry. 2137: (with Yano, Kentaro) Some results related to the equivalence problem in Riemannian geometry.
- Noordij, P. 6246: Über das Produkt von vier reellen, homogenen, linearen Formen.
- Norkin, S. B. 543: Oscillations of a system with self-regulating lag. 544: Self-excitation and damping of oscillations in a system with self-regulating lag. 1742: Oscillations of a system with self-regulating lag and with a nonlinear oscillating circuit.
- Norman, Christopher W. 6197: A characterization of the Mathieu group  $M_{11}$ .
- Norman, M. Frank. 2540: On the linear model with two absorbing barriers. 7185: (with Yellott, John I., Jr.) Probability matching.
- Noronha Galvão, M. L. 2818: (with Almeida Costa, A.) Sur le demi-anneau des nombres naturels.
- Norris, D. O. 5757: Lagrangian saddle points and optimal control.
- Noshiro, Kiyoshi. 1617: Some theorems on cluster sets.
- Nosov, V. R. 1180: On a problem occurring in the theory of optimum control with aftereffects.
- Nouaze, Yvon. 5262: Remarques sur: "Idéaux premiers de l'algèbre enveloppante d'une algèbre de Lie nilpotente".
- Novák, B. 5151: Verallgemeinerung eines Petersenschen Satzes und Gitterpunkte mit Gewichten. 6243: On lattice points with weight in high-dimensional ellipsoids.
- Noverraz, Philippe. 5423: Un théorème de Hartogs et théorèmes de prolongement dans les espaces vectoriels topologiques complexes.
- Novick, Melvin R. 1032: (with Woodbury, Max A.) Maximizing the validity of a test battery as a function of relative test lengths for a fixed total testing time.
- Novikov, I. D. 3824: The spectra of quadratic operators of second quantization.
- Novikov, S. P. 6956: Pontrjagin classes, the fundamental group and some problems of stable algebra.
- Nóvoa, E. Villanueva. See Villanueva Nóvoa, E.
- Novoa, Lino Gutiérrez. See Gutiérrez Novoa, Lino.
- Novokilov, Ju. V. 2897: (with Terent'ov, I. A.) ★Unitary representations of the generalized Poincaré groups.
- Nevruzev, G. M. 1090: The convergence of approximate methods of solution of differential equations in a Banach space.
- Nower, Leon. 6752: On distributions with support at the origin.
- Nuding, E. 7074: (with Ehret, B.) Berechnung von Funktionen von Matrizen.
- Nunnally, Ellard. 2201: A factorization of stable homeomorphisms of  $E^n$ .
- Nunokawa, M. 2971: On the univalence and multivalence of certain analytic functions.
- Ōba, Yukio. 2000: On the integral representation of non-negative functionals.
- Obayashi, Tadao. 1438: On the Grothendieck ring of an abelian  $p$ -group. 4178: On integral group rings.
- Obatal, Kiri K. 787: Spectrum of a spectral operator. 5717: Sum and product of commuting spectral operators.

- Oberg, R. 2922: (with Leipnik, Roy) Subvex functions and Bohr's uniqueness theorem.
- Oberhettinger, F. See Schwarz, Ralph J., #2401 and Bradley, Lee C.; Aggarwal, H. R.; Ablow, C. M.; Wood, Van E. and Glasser, M. L., #3398.
- Oberschelp, Walter. 3965: Die Anzahl nicht-isomorpher  $m$ -Graphen.
- Oberst, Ulrich. 1440: Basiserweiterung in der Homologie kleiner Kategorien. 1439: (with Gabriel, Peter) Spektralkategorien und reguläre Ringe im von-Neumannschen Sinn.
- Obreschkoff, Nikola. See Obreškov, Nikola.
- Obreškov, Nikola. 7084: Über die Nullstellenbestimmung mittels quadratischer Gleichungen.
- Obretenov, Apostol. 2334: A generalization of a renewal theorem by Blackwell.
- Occorsio, Mario Rosario. 3780: Alcuni criteri di convergenza del procedimento iterativo di Liebmann per la risoluzione numerica del primo problema al contorno per equazioni di tipo ellittico. 4977: Sulla risoluzione numerica, con un metodo iterativo, del primo problema al contorno per equazioni di tipo parabolico.
- Ochiai, Shōji. 6927: (with Nakagawa, Ryosuke) On the dimension of generators of a polynomial algebra over the mod  $p$  Steenrod algebra.
- Ochranová-Doleželová, Renata. 3875: Real-time decidability, computability, countability and generability.
- Oda, Tadao. 1379: (with Oort, Frans) Higher extensions of abelian varieties.
- Odariš, O. M. 4370: (with Sevelo, V. M.) The non-oscillation of solutions of second order nonlinear differential equations with delay.
- Oddson, J. K. 3195: On the boundary point principle for elliptic equations in the plane.
- Offord, A. C. 6987: The distribution of zeros of power series whose coefficients are independent random variables.
- Ogannisjan, V. A. 1217: Omar Khayyām. 3891: Euclid. 3892: Claudius Ptolemaeus.
- Ogasawara, Motoyasu. 1034: (with Ogawa, Junjiro and Ikeda, Sadao) On the null-distribution of the  $F$ -statistics for testing a "partial" null-hypothesis in a randomized partially balanced incomplete block design with  $m$  associate classes under the Neyman model.
- Ogawa, Junjiro. 1034: (with Ikeda, Sadao and Ogasawara, Motoyasu) On the null-distribution of the  $F$ -statistics for testing a "partial" null-hypothesis in a randomized partially balanced incomplete block design with  $m$  associate classes under the Neyman model.
- Ogawa, Yōsuke. 860: On  $C$ -Killing forms in a compact Sasakian space.
- Ogibin, V. N. 3738: (with Kuropatenko, E. S.) A scheme for simulating the trajectories of particles in systems with a complicated geometry.
- Ogleveckil, I. I. 1841: Regions of effectiveness of regular matrices.
- Ogilvie, J. 2379: (with Srivastava, M. S.) The performance of some sequential procedures for a ranking problem.
- Ogiue, Koichi. 3472:  $G$ -structures defined by tensor fields. 5811: On concurrent structures.
- Ogustáreli, M. N. 3156: Studies concerned with time optimal control problems. I. Systems described by differential difference equations. 3157: Studies concerned with time optimal control problems. II. Properties of optimal strategies.
- O'Hara, H. 0031: (with Smith, Francis J.) Error estimation in the Clenshaw-Curtis quadrature formula.
- Oharu, Shinnosuke. 4670: A note on the generation of nonlinear semi-groups in a locally convex space.
- Ohm, Jack. 5201: (with Pendleton, R. L.) Rings with noetherian spectrum.
- Ohya, Takemasa. 38: Many valued logics extended to simple type theory.
- Ōike, Hiroshi. 2224: (with Kuriyama, Yoshiaki) On the retractions of stunted projective spaces.
- Okamoto, Kiyosato. 1519: On induced representations. 4634: (with Ozeki, Hideki) On square-integrable  $\bar{\partial}$ -cohomology spaces attached to hermitian symmetric spaces.
- Okamoto, Masashi. 3693: (with Kanazawa, Mitsuyo) Minimization of eigenvalues of a matrix and optimality of principal components.
- Okano, Takashi. 6488: A remark on complex analytic families of complex tori.
- O'Keefe, E. S. 7177: (with Hillman, A. P.; Mead, D. G. and O'Keefe, E. B.) A dynamic programming generalization of  $xy$  to  $n$  variables.
- O'Keefe, K. B. 7177: (with Hillman, A. P.; Mead, D. G. and O'Keefe, E. S.) A dynamic programming generalization of  $xy$  to  $n$  variables.
- Okikiolu, G. O. 6704: On maximal functions of fractional order.
- Okubo, Tanjiro. 4735: Hypertangent bundles  $\mathcal{W}(M_{2n})$  with  $(H, \xi, \eta, G)$ -structure.
- Okumura, Masafumi. 2143: Certain hypersurfaces of an odd dimensional sphere.
- Okuyama, Akihiro. 4791:  $\sigma$ -spaces and closed mappings. I, II. 5846: Some generalizations of metric spaces, their metrization theorems and product spaces.
- Okuyama, Hiroshi. 6280: (with Sakuma, Motoyoshi) On the Betti series of local rings.
- Oláh, G. 6209: A problem on the enumeration of certain trees.
- Olds, C. D. 3999: ★Frazioni continue.
- Olech, Czesław. 3334: Approximation of set-valued functions by continuous functions. 485: (with Plis, A.) Monotonicity assumption in uniqueness criteria for differential equations. 3131: (with Szegő, G. P. and Cellina, A.) On the stability properties of a third order system.
- Oleinik, O. A. 1124: On the mathematical theory of the boundary layer. 4427: Stability of solutions of a system of boundary layer equations for a nonsteady flow of incompressible fluid. 4429: Mathematical problems of boundary layer theory. 5542: Alcuni risultati sulle equazioni lineari e quasi lineari ellittico-paraboliche a derivate parziali del secondo ordine.
- Oler, N. 4199: The connectedness of fundamental sets.
- Olin, Philip. 2589: (with Jónsson, Bjarni) Almost direct products and saturation.
- Oliva, Waldyr Muniz. 1508: Géométrie différentielle: Groupoides différentiables et pseudogroupes de Lie intrinsèques.
- de Oliveira, J. Tiago. See Tiago de Oliveira, J.
- Oliveira-Pinto, F. 2408: Curve fitting to unequally-spaced data: Polynomial and trigonometric approximation. 2409: Surface fitting to unequally-spaced data: Polynomial and non-polynomial approximation.
- Oliver, J. 2479: The numerical solution of linear recurrence relations.
- Oliveri, Umberto. 354: Un'osservazione sulle funzioni di Pompeiu.
- Olivier, Jean-Pierre. 3513:  $K$ -structures.
- Ol'sanskii, A. Ju. 2841: A certain problem of Hanna Neumann.
- Olshen, Richard A. 3643: Asymptotic properties of the periodogram of a discrete stationary process.
- Olson, John E. 2714: An addition theorem modulo  $p$ . 2715: An addition theorem for the elementary Abelian group.
- Olson, Milton P. 5687: The order-continuous operators on  $L_p$ -spaces. I. General theory.
- Olver, F. W. J. 3791: An extension of Miller's algorithm. 4981: Bounds for the solutions of second-order linear difference equations.
- O'Malley, Robert E., Jr. 6560: A boundary value problem for certain nonlinear second order differential equations with a small parameter. 525: (with Keller, Joseph B.) Loss of boundary conditions in the asymptotic solution of linear ordinary differential equations. II. Boundary value problems. 527: (with Handelman, G. H. and Keller, J. B.) Loss of boundary conditions in the asymptotic solution of linear ordinary differential equations. I. Eigenvalue problems.
- Omarov, A. I. 2590: Filtered products of models.
- O'Neill, John C. 2483: (with Byrne, George D.) A starting method for the numerical solution of Volterra's integral equation of the second kind.
- Onicescu, Octav. 5052: Énergie informationnelle.
- Ono, Katuzi. 3907: On taboistic treatment of proposition logics.
- Ono, Takashi. 6286: A mean value theorem in adèle geometry.
- Onuchie, Nelson. 3158: On the uniform stability of a perturbed linear functional differential equation. 6567: On the asymptotic behavior of the solutions of functional-differential equations.
- Oort, Frans. 4085: (with Mumford, David) Deformations and liftings of finite, commutative group schemes. 1379: (with Oda, Tadao) Higher extensions of abelian varieties.
- Oppenheim, Alexander. 164: The irrationality of certain infinite products. 5765: Inequalities for a simplex and an internal point. 5786: Some inequalities for a spherical triangle and an internal point.
- Oprea, Arsenie. 6620: (with Ciobanu, Liviu; Poteraşu, Florin; Bercoş, Malca and Deleanu, Spiridon) Application of some classes of solutions

- to polyvibrating equations in the study of the dynamics of mechanisms and machines. I. 5430: (with Ciobanu, Liviu; Poteraşu, Florin; Bercovici, Malca and Triandaf, Ana) Nuove classi di funzioni spettanti ai sistemi funzionali alle derivate totali. I. Funzioni ipergeometriche generalizzate.
- O'Riagain, L. 7155: (with Komy, S.) Some properties of ladder operators.
- Ord, J. K. 2287: Approximations to distribution functions which are hypergeometric series. 7025: The discrete Student's  $t$  distribution.
- Ore, Oystein. 2628: Diameters in graphs.
- Orevkov, V. P. 1242: Certain types of continuity of constructive operators. 2579: Constructive mappings of finite polyhedra.
- Orey, Steven. 2288: On continuity properties of infinitely divisible distribution functions. 4879: Polar sets for processes with stationary independent increments.
- d'Orgeval, B. 4710: Sur les cubiques gauches d'un espace  $S_3$  construit sur un champ de Galois de caractéristique 2.
- Orihara, Akio. 5326: A method of enumerating all irreducible unitary representations of the group  $SL(2, C)$ .
- Orlik, W. 2928: On some classes of finitely additive set functions. 2929: Absolute continuity of vector-valued finitely additive set functions. I. 6426: (with Musielak, J.) Notes on the theory of integral. II.
- Orlik, Peter. 1441: On the extensions of the infinite cyclic group by a 2-manifold group. 4819: (with Rourke, C. P.) Free involutions on homotopy  $(4k+3)$ -spheres.
- Ornstein, Donald S. 4886: Random walks on the line.
- Oročko, Ju. B. 6784: Estimate of the growth of averaged eigenfunctions of selfadjoint operators.
- Orsatti, Adalberto. 2993: Una caratterizzazione dei gruppi abeliani compatti o localmente compatti nella topologia naturale.
- Ortega, J. M. 6773: The Newton-Kantorovich theorem.
- Orynbasarov, M. 3216: The first boundary value problem for the heat equation when the boundary of the region has singularities. II.
- Orzech, Morris. 3268: A cohomology theory for commutative Galois extensions.
- Osaki, Shunji. 3968: (with Mine, Hisashi) Some remarks on a Markovian decision problem with an absorbing state.
- Osborne, R. P. 899: (with Christenson, C. O.) Pointlike subsets of a manifold.
- O'Shaughnessy, C. D. 3940: A Room design of order 14.
- O'Shea, Siobhan. 1565: Note on power series of a certain type.
- Osipov, Iu. S. See Osipov, Ju. S.
- Osipov, Ju. S. 5505: On the reduction principle in critical cases of stability of the motion of time-lag systems.
- Osipov, R. I. 681: The divergence of orthogonal series to infinity.
- Osipov, S. I. 1909: The transformation of operator sums.
- Osipova, V. A. 1453: The word problem for finitely defined semigroups.
- Oskolkov, A. P. 605: Solvability of the Dirichlet problem for quasilinear elliptic equations in an unbounded region. I. 3215: A certain problem for Laplace's equation in a sphere and a disc. 4406: (with Ivočkina, N. M.) Nonlocal estimates of the first derivatives of solutions of the Dirichlet problem for nonuniformly elliptic quasilinear equations.
- Osofsky, B. L. 205: Homological dimension and the continuum hypothesis.
- Osofsky, G. A. 5637: (with Židkov, E. P.) The solution of nonlinear integral equations through the introduction of a continuous parameter.
- Osserman, Robert. 2103: (with Chern, Shing-shen) Complete minimal surfaces in euclidean  $n$ -space.
- Ossicini, Alessandro. 4498: (with Ghizzetti, Aldo) Su un nuovo tipo di sviluppo di una funzione in serie di polinomi.
- Ostapov, Ju. G. 6122: Frequency criterion of absolute stability of impulse systems with several nonlinear blocks.
- Ostann, N. M. See Teleman, C., #2215.
- Ostrom, T. G. 2681: Vector spaces and construction of finite projective planes. 2675: (with Dembowski, Peter) Planes of order  $n$  with collineation groups of order  $n^3$ .
- Ostroumov, V. V. 1703: The unique solvability of de la Vallée Poussin's problem.
- Ostrovskii, E. A. 4394: On a problem about the conjugacy of equations of parabolic and hyperbolic types with discontinuous coefficients.
- Ostrowski, A. M. 1563: On the moduli of zeros of derivatives of polynomials. See also Bibliography, #6154.
- Otason, Ulf. 1522: A classification of the unitary irreducible representations of  $SO_0(N, 1)$ .
- Outcalt, D. L. 6337: (with Anderson, C. T.) On simple anti-flexible rings. 1417: (with Johnsen, E. C. and Yaqub, Adil) An elementary commutativity theorem for rings.
- Ovaert, Jean-Louis. 2: (with Chambadal, Lucien) ★Cours de mathématiques. Tome I. Notions fondamentales d'algèbre et d'analyse.
- Ovčarenko, I. E. 781: Precommutation of operators, and related questions on the extension of Hermitian-positive functions. 1894: (with Levin, B. Ja.) The prolongation of Hermite-positive functions defined on a strip.
- Ovčinnikov, I. S. 1575: A "length and area principle" type inequality for  $n$ -dimensional space. 2202: Prime ends of a certain class of space regions. 5379: The nonexistence of mappings of class  $BL^{n/2}$  of a ball onto a region.
- Ozaki, Hiroshi. 5119: (with Shirakawa, Isao and Takahashi, Hiromitsu) On the planar decomposition of a complete bipartite graph.
- Ozawa, Mitsuru. 4260: On the solution of the functional equation  $f \circ g(z) = F(z)$ . I, II. 5377: On rigid analytic mappings among surfaces  $\{e = f(z)\}$ . 6456: On analytic mappings among three-sheeted surfaces.
- Ōzbek, A. R. See Markušević, A. I., #3236 and Dynkin, E. B. and Uspenskii, V. A., #3884a, c.
- Ozeki, Hideki. 4834: (with Okamoto, Kiyosato) On square-integrable  $\bar{\partial}$ -cohomology spaces attached to hermitian symmetric spaces.
- Öztemre, A. Yüksel. See Kazarianoff, Nicholas D., #3451.
- Oliganova, I. A. 2662: On the theory of optimal systems with lag.
- Özkan, M. A. See Markušević, A. I., #3236 and Dynkin, E. B. and Uspenskii, V. A., #3884a, c.
- Paananen, Eero. 2517: Two queues in tandem.
- Pabedinskaitė, A. S. 5926: (with Mirakaj, T. I. and Tempelmanas, A.) Hilbert spaces of certain reproducing kernels and the equivalence of Gaussian measures.
- Pacheco de Amorim, José Bayolo. 2197: Le schéma d'une carte.
- Pacholski, L. 871: (with Weglorz, B.) Topologically compact structures and positive formulas.
- Padervinskas, V. 6843: Rhombic and rhombohedral nets in three-dimensional Euclidean space.
- Padmanabhan, K. S. 6453: On the radius of univalence and starlikeness for a certain class of meromorphic functions.
- Pahareva, N. A. See Pahareva, N. O.
- Pahareva, N. O. 6469: (with Aleksandrovič, I. N.) Integral representation of  $p$ -analytic functions with characteristic  $p = e^{a_2} y^b$ .
- Palewonsky, Bernard. 803: (with McIntyre, John) On optimal control with bounded state variables.
- Pak, I. N. 6673: Sums of series in Čebyšev polynomials.
- Pak, Jingyal. 2263: Actions of circle groups on spheres and lens spaces.
- Palais, R. S. 4119: The classification of real division algebras.
- Palamodov, V. P. 5528: A remark on the exponential representation of solutions of differential equations with constant coefficients.
- Palásti, I. 3948: On the connectedness of random graphs.
- Pal'cev, B. V. 5000: The method of small parameter in a boundary value problem for a system of Oseen.
- Palis, J. 5896: On Morse-Smale diffeomorphisms.
- Paljutkin, V. G. 2014: Approximate unity in the group algebra of a ring group.
- Palmer, Edgar M. 3936: (with Harary, Frank) On acyclic simplicial complexes. 3961: (with Harary, Frank) The groups of the small digraphs.
- Palmer, Theodore W. 6768: Unbounded normal operators on Banach spaces. 3391: (with Anselone, P. M.) Spectral analysis of collectively compact, strongly convergent operator sequences. 3390: (with Anselone, P. M.) Collectively compact sets of linear operators.
- Panagiotopoulos, Antonios. 6198: Une application des graphes aux plans d'expérience.
- Panasovič, V. A. 4961: (with Dzjadik, V. K.) Estimate of the remainder for certain cubature formulas.
- Panayotopoulos, Antoine. See Panagiotopoulos, Antonios.



- Pande, H. D. 5832: (with Mishra, R. S.) Certain projective changes in Finsler space.
- Pandey, J. N. 3284: (with Zemanian, A. H.) Complex inversion for the generalized convolution transformation.
- Pandey, S. N. 2146: (with Kansal, I. D.) Spherically symmetric space-time of class one and electromagnetism.
- Pandikidze, S. P. 3278: The convergence of double orthogonal Fourier series.
- Panejah, B. P. See Hörmander, Lars, #6595.
- Panella, Gianfranco. 3440: Una classe di fibrazioni di uno spazio proiettivo. 4115: Osservazione riguardante gli anelli che verificano una condizione di massimo.
- Panov, D. J. See Panov, D. Ju.
- Panov, D. Ju. 2460: ★Formulas for the numerical solution of partial differential equations by the method of differences.
- Panov, L. I. 6712: Integral equations with kernels possessing a non-integrable singularity of arbitrary order.
- Pansone, R. 6998: (with Benedek, A.) A note on Haar series and Markoff processes. 5347: (with Merlo, J. C.) Notes on the measure extension problem.
- Pao, Young-ping. 6094: Boundary-value problems for the linearized and weakly nonlinear Boltzmann equation.
- di Paola, Robert A. See Di Paola, Robert A.
- Papangelou, F. 2315: Strong ratio limits,  $R$ -recurrence and mixing properties of discrete parameter Markov processes. 5350: Footnote to the construction of  $\sigma$ -finite measures in product spaces. 5365: On weak convergence and convergence in measure of transformations in topological measure spaces.
- Papert Strauss, Dona. 3532: Topological lattices.
- Paplauskas, A. B. 675: ★Trigonometric series from Euler to Lebesgue.
- Papoulis, A. See Fahidy, T. Z., #6695.
- Papue, Dan I. 931: Observations on disjoint global sections of fibred spaces.
- Paraev, Ju. I. 2549: On optimal control in stochastic systems.
- Paraev, Yu. I. See Paraev, Ju. I.
- Parashar, B. P. 4518: Domain and range of fractional integration operators.
- Parasjuk, O. S. 3899: (with Mitropol'skii, Ju. O. and Bogoljubov, A. N.) Iosif Zaharovič Štokalo: On his seventieth birthday.
- Parfenov, V. A. 2825: Varieties of Lie algebras.
- Parikh, Rohit. 1248: On nonuniqueness in transfinite progressions.
- Parker, Francis D. 2677: A Fibonacci function.
- Parker, I. B. 3733: (with Fox, L.) ★Chebyshev polynomials in numerical analysis.
- Parkin, T. R. 6237: (with Lander, L. J.) On first appearance of prime differences. 2711: (with Shanks, Daniel) On the distribution of parity in the partition function.
- Parlett, Beresford. 4099: Canonical decomposition of Hessenberg matrices.
- Parrott, S. K. 2908: Isometric multipliers.
- Parry, William. 373: Aperiodic transformations and generators. 6435: (with Hahn, Frank) Some characteristic properties of dynamical systems with quasi-discrete spectra.
- Parter, S. V. 1097: Elliptic equations.
- Parthasarathy, K. R. 109: Enumeration of graphs with given partition. 2271: ★Probability measures on metric spaces. 5611: (with Bingham, M. S.) A probabilistic proof of Bochner's theorem on positive definite functions. 1526: (with Ranga Rao, R. and Varadarajan, V. S.) Representations of complex semi-simple Lie groups and Lie algebras.
- Parthasarathy, T. 4219: On general minimax theorem.
- Partinova, Nell. 5472: (with Bainov, Drumi) A method of solving an autonomous quasilinear system with  $n$  degrees of freedom having a group of commensurable frequencies.
- Pasynkov, B. A. 1515: Sections over zero-dimensional subsets of factor spaces of locally biocompact groups.
- Paszkowski, S. 1082: The application of the method of least squares to the integration of empirical functions.
- Pathak, P. K. 3722: Asymptotic efficiency of Des Raj's strategy. I. 3723: Asymptotic efficiency of the symmetrized Des Raj strategy. II.
- Pathak, Ram Shanker. 4293: Definite integrals involving  $G$ -functions.
- Patil, G. P. 7020: (with Bildikar, Sheela) Multivariate exponential-type distributions.
- Patkowska, H. 904: On the one-point union of crumpled cubes.
- Patnaik, J. N. 1887: (with Mohanty, R.) On the absolute  $L$ -summability of a Fourier series.
- Pătrăscu, Mariana. 3873: Concepts of algebraic cryptography. II. Analysis of the case  $n=2$  of algebraic cryptographs. Utilization of electronic calculators for this case.
- Patterson, H. D. 3705: Serial factorial design.
- Patterson, T. N. L. 2439: (with Cranley, R.) The evaluation of multi-dimensional integrals.
- Patty, C. W. 5865a: Homology of deleted products of contractible 2-dimensional polyhedra. I. 5865b: Homology of deleted products of contractible 2-dimensional polyhedra. II.
- Pauri, M. 5010: (with Prosperi, G. M.) Canonical realizations of the rotation group.
- Păvăloiu, I. 73: (with Negrescu, L.) A property of matrix schemes of algorithms.
- Pavel, Parashiva. 2445: On some quadrature formulae of Gaussian type.
- Pawelke, A. 5581: (with Nessel, R. J.) Über Favardklassen von Summationsprozessen mehrdimensionaler Fourierreihen.
- Pawelke, S. 3397: (with Butzer, P. L.) Semi-groups and resolvent operators.
- Pawelski, W. 3173: Sur les inégalités mixtes entre les intégrales de l'équation aux dérivées partielles  $z_x = f(x, y, z, z_x)$ . 3174: Remarques sur des inégalités entre les intégrales des équations aux dérivées partielles du premier ordre. 3175: On a case of mixed inequalities between solutions of first order partial differential equations.
- Payan, Jean-Jacques. 1347: (with Martinet, Jacques) Sur les bases d'entiers des extensions galoisiennes et non abeliennes de degré 6 des rationnels. 2722: (with Martinet, Jacques) Sur les extensions cubiques non-Galoisiennes des rationnels et leur clôture Galoisienne.
- Payen, R. 6993: Fonctions aléatoires du second ordre à valeurs dans un espace de Hilbert.
- Payne, H. J. 5954: (with Caughey, T. K.) On the response of a class of self-excited oscillators to stochastic excitation.
- Payne, Lawrence E. 449: (with Bramble, James H.) Bounds for the first derivatives of Green's function. 1812: (with Knops, R. J.) On the stability of solutions of the Navier-Stokes equations backward in time. 2420: (with Moler, C. B.) Bounds for eigenvalues and eigenvectors of symmetric operators.
- Payne, Stanley E. 3949: A Bruck-Ryser type non-existence theorem.
- Paz, A. 1201: Minimization theorems and techniques for sequential stochastic machines.
- Paxy, A. 6797: On the differentiability and compactness of semi-groups of linear operators.
- Pearce, C. 997: Queues with moving average service times. 2337: On the tandem queueing system  $GI/M/1 \rightarrow \dots /M/1$  with restricted waiting room in the first stage.
- Pearce, S. C. 1005: The mean efficiency of equi-replicate designs.
- Pearcy, Carl. 4634: (with Ringrose, John R.) Trace-preserving isomorphisms in finite operator algebras.
- Pearson, Allan E. 6128: Adaptive optimal steady state control of nonlinear systems.
- Pearson, Carl E. 3773: On a differential equation of boundary layer type.
- Pearson, E. S. 3673: Lagrangian coefficients for interpolation between tabulated percentage points. See also Tables of the incomplete beta-function, #2402.
- Pearson, K. R. 1509: Certain topological semirings in  $R_1$ . 1510: Embedding semirings in semirings with multiplicative unit.
- Pearson, Karl. See Tables of the incomplete beta-function, #2402.
- Pederson, Roger N. 2972: On unitary properties of Grunsky's matrix. 1764: (with Kolodner, I. I.) A note on first order semi-linear partial differential equations.
- Pedoe, Daniel. 223: ★A geometric introduction to linear algebra.
- Peetre, Jaak. 5731: Pointwise convergence of singular convolution integrals.
- Peixoto, M. M. 535: (with Pugh, C. C.) Structurally stable systems on open manifolds are never dense.

- Pełczyński, A. 737: On almost diffeomorphic Banach spaces. 3335: Linear extensions, linear averagings, and their applications to linear topological classification of spaces of continuous functions. 6743: (with Lindenstrauss, J.) Absolutely summing operators in  $L_p$ -spaces and their applications.
- Pelag, Bezalel. 7183: (with Maachler, Michael) The structure of the kernel of a cooperative game.
- Pelletier, L. A. 6746: (with Wemels, J.) On Sobolev's first embedding theorem.
- Pellegrino, Franco. 5142: Elementi moltiplicativi dell'anello delle funzioni aritmetiche.
- Pelli, Tiziano. 4867: Sur le maximum d'un processus aléatoire.
- Pellicciaro, E. J. 590: A compatibility theorem for two point boundary problems.
- Peltzer, Christian P. See Gelfand, I. M. and Šilov, G. E., #5693.
- Pena Trapero, J. Bernardo. 3836: The use of lags in uni-equational econometric models: Autoregressive models and models with distributed lags.
- Pendleton, R. L. 5201: (with Ohm, Jack) Rings with noetherian spectrum.
- Penkov, B. 3847: (with Theodorescu, R.) Über die spieltheoretische Behandlung von Prüfplänen.
- Penot, Jean-Paul. 6966: Une méthode pour construire des variétés d'applications au moyen d'un plongement.
- Pentony, P. F. 5276: (with Kovács, L. G. and Newman, M. F.) Generating groups of nilpotent varieties.
- Peradze, D. G. 3746: The distribution of errors in solving a system of linear algebraic equations by the iteration method.
- Pereira, Norma P. 2396: (with Rao, J. N. K.) On double ratio estimators.
- Persiani, Anthony L. 3315: ★Ordered topological vector spaces.
- Pereyra, Victor. 1091: Iterated deferred corrections for nonlinear boundary value problems. 3751: †(with Ballester Pereyra, Concepción) On the construction of discrete approximations to linear differential expressions. 3752: †(with Ballester Pereyra, Concepción) Supplement to Bickley's table for numerical differentiation.
- Perfect, Hazel. 93: Applications of Menger's graph theorem. 1268: (with Mirsky, L.) Applications of the notion of independence to problems of combinatorial analysis.
- Perisastri, M. 1316: A note on Fermat's last theorem.
- Perjeriu, E. 5791: The Möbius configuration  $4_3$  applied to isotropic curves.
- Perlatov, G. N. 2967: Some questions on the axiomatics of geometry, pertaining to the independence of the membership, order and congruence axioms. I. 4097: Some questions on the axiomatics of geometry, pertaining to the independence of the membership, order and congruence axioms. II.
- Perles, M. A. See Grünbaum, Branko, #2085.
- Perlis, H. J. 7195: The cost function and its minimization for a general class of self-adaptive systems.
- Permutti, Rodolfo. 816: Determinazione di forme algebriche di  $S$ , a hessiana indeterminata. 3434: Una generalizzazione dei piani di Möbius.
- Perov, A. I. 5469: A question on the structure of the limit set. 4333: (with Kacaran, T. K.) Theorems of Favard and Bohr-Neugebauer for multidimensional differential equations. 4507: (with Kibenko, A. V.) A theorem on the argument of an almost periodic function of several variables.
- Perrin, Henri. 7137: Sur une classe de solutions des équations de l'hydrodynamique relativiste.
- Perrot, Jean-François. 5285: (with Jacques, Alain; Lenormand, Claude and Lentin, André) Un résultat extrémal en théorie des permutations.
- Persidskii, K. P. 519: (with Habibullin, A. A.) The reduction principle for differential equations in a nonlinear space  $\omega$ .
- Peršin, A. I. 5833: On the geometric theory of a singular variational problem of Lagrange in  $X_4$ .
- Persson, Jan. 4393: Exponential majorization applied to a non-linear Cauchy (Goursat) problem for functions of Gevrey nature.
- Pertaja, K. V. 2462: (with Aleksidze, M. A.; Arveladze, N. M. and Lekšvili, N. L.) The solution of boundary value problems by means of nonorthogonal series.
- Pervin, W. J. 6903: (with Biesterfeldt, H. J., Jr.) Uniformization of convergence spaces. II. Conjugate convergence structures and bi-structures.
- Peschl, Ernst. 4240: ★Funktionentheorie. Erster Band.
- Pesin, I. N. 2916: The measurability of symmetrically continuous functions.
- Peskine, Christian. Ses Anneaux de Gorenstein, et torsion en algèbre commutative, #1435.
- Peteu, A. 6214: Definition of lattice with the aid of only the laws of associativity and absorption.
- Peteanu, Vasile. 7217: An algebra of the optimal path in networks.
- Petersdorf, M. 1275: Einige Bemerkungen über vollständige Bigraphen.
- Petersen, Gordon M. 642: ★Regular matrix transformations. 1842: Singularities for matrices and sequences.
- Peterson, Bruce B. 3559: Formal contraction of the  $n$ -simplex.
- Peterson, Elmer L. 441: Discrete complex functions with prescribed boundary values and residues. 439: (with Duffin, R. J.) The discrete analogue of a class of entire functions. 1165: (with Ecker, J. G.) Geometric programming: A unified duality theory for quadratically constrained quadratic programs and  $L_p$ -constrained  $L_p$ -approximation problems.
- Peterson, F. P. 2226: (with Massey, W. S.) ★The mod 2 cohomology structure of certain fibre spaces. 5878: (with Toda, Hiroshi) On the structure of  $H^*(BSF; \mathbb{Z}_p)$ .
- Peterson, W. W. 5951: (with Kasami, T. and Lin, S.) Some results on cyclic codes which are invariant under the affine group and their applications.
- Petersson, Hans. 4021: Über die logarithmischen Ableitungen der automorphen Formen.
- Pethő, Árpád. 5230: (with Györy, Kálmán) On solutions, containing "many" zeros, of systems of homogeneous linear equations.
- Petit, Jean-Claude. 6340: Sur les quasi-corps distributifs à base monogène.
- Petri, N. V. 7080: (with Ikramov, H. D.) The extremal properties of certain matrix norms.
- Petric, Mario. 5313: The translational hull of a completely 0-simple semigroup. 5314: Translational hull and semigroups of binary relations.
- Petrojan, L. A. 1170: Another generalization of Kuhn's theorem. 5040: A certain invariant in differential pursuit games. 6116: The applicability of Isaacs' technique of solution "in the small" to the solution "in the small" of certain pursuit games. 1171: (with Murzov, N. V.) The  $n$ -person tug of war game.
- Petrov, N. N. 4377: Controllability of autonomous systems.
- Petrov, Valentin V. 3636: On the law of the iterated logarithm without assumptions about the existence of moments.
- Petruska, Gy. 5336: Notes on open functions.
- Petrulko, I. M. 618: The Fredholmity of certain boundary value problems for the equation  $u_{xx} + yu_{yy} + a(x, y)u_x + \beta(x, y)u_y + \gamma(x, y)u = f(x, y)$  in a mixed domain. 3207: On non-uniqueness of the Cauchy problem for a parabolic equation.
- Petryshyn, W. V. 2049: On the approximation-solvability of nonlinear equations. 6776: On projectional-solvability and the Fredholm alternative for equations involving linear  $A$ -proper operators. 4678: (with Browder, Felix E.) The topological degree and Galerkin approximations for noncompact operators in Banach spaces.
- Petis, B. J. 6895: A comment on compactness.
- Petuhov, V. R. 3159: Investigation of a certain system of differential-functional equations.
- Peyerimhoff, Alexander. 646: Über einen Vergleichssatz für Nörlundverfahren. 4460: On the equivalence of continuous and discontinuous Riesz means. 5571: (with Irwin, R.) On the convexity theorem of M. Riesz.
- Peyser, Glendon. 2917: On the roots of the derivative of a polynomial with real roots.
- Pezzana, Mario. 2748: Una costruzione delle trasformazioni puntuali piane in un loro insieme di regolarità e sue applicazioni.
- Pfeffer, W. F. 5453: On the stress equations for a heated rotating disc.
- Pham, F. 4837: ★Introduction à l'étude topologique des singularités de Landau. 5421: (with Bros, J. and Itzykson, C.) Représentations intégrales de fonctions analytiques et formule de Jost-Lehmann-Dyson.
- Pham Ngoc Dinh. 6496a: Sur les formes bi-confluentes de l'équation

- de Heun et leurs solutions. 6496b: Sur une forme bi-confluente de l'équation de Heun et ses solutions.
- Phan Dieth Dieu. 2589: Closed and open sets in constructive topological spaces.
- Phelps, R. R. 730: (with Hulanicki, A.) Some applications of tensor products of partially-ordered linear spaces.
- Philip, J. R. 5907: Some integral equations in geometrical probability.
- Phillip, Johan. 6619: Estimates of the age of a heat distribution.
- Philipp, Walter. 5367: Mischungseigenschaften gewisser auf dem Torus definierter Endomorphismen.
- Phillipson, Carl. 4849: Some convolution theorems for compound Poisson processes.
- Phillips, Anthony. 4529: Foliations on open manifolds. I.
- Phillips, D. L. 6421: Remark on an inequality of Shampine.
- Phillips, E. C. 2496: (with Barut, A. O.) Matrix elements of representations of non-compact groups in a continuous basis.
- Phillips, G. M. 654: Estimate of the maximum error in best polynomial approximations. 6013: Algorithms for piecewise straight line approximations.
- Phillips, Ralph S. 6775: (with Crandall, Michael G.) On the extension problem for dissipative operators. 1804: (with Sarason, Leonard) Corrigendum on: "Elliptic-parabolic equations of the second order".
- Picard, Claude. 1193: Valeur maximale de l'information traitée. 7070: Information, acquisition, précision. Suivre d'un annexe sur l'axiomatique de l'information et de l'acquisition.
- Piehon, Guy. 7127: Théorèmes d'existence pour les équations des milieux élastiques. 7160: Calcul et utilisation des moments de la fonction de distribution d'un fluide parfait.
- Pickett, H. E. 5134: Subdirect representations of relational systems.
- Picone, Mauro. 6032: Sulla relazione fondamentale del calcolo numerico di un integrale pluridimensionale per decomposizione in prodotto dell'integrando.
- Pieczkowski, August. 1235: (with Kotas, Jerzy) A cylindrical algebra based on the Boolean ring.
- Pier, Jean-Paul. 6911: Genèse et évolution de l'idée de compact.
- Pierce, John N. 7204: Limit distribution of the minimum distance of random linear codes.
- Pierce, Richard S. 2655: ★Introduction to the theory of abstract algebras. 5269: The global dimension of Boolean rings.
- Pierce, S. J. 4113: (with Moore, H. G. and Yaqub, Adil) Commutativity in rings of zero divisors.
- Pierce, William A. 3441: Isomorphisms of Pickert-Moulton planes.
- Pietsch, Albrecht. 5355: Abbildungen von abstrakten Massen.
- Pignatelli, Giuseppe. 6074: Su un teorema di unicITÀ, per il campo elettromagnetico periodico non-lineare.
- Pillai, K. C. Sreedharan. 5981: On the moment generating function of Pillai's  $V^{(n)}$  criterion. 1024: (with Gupta, Arjun K.) On the non-central distribution of the second elementary symmetric function of the roots of a matrix. 5982: (with Khatri, C. G.) On the moments of elementary symmetric functions of the roots of two matrices and approximations to a distribution.
- Pinchuk, Bernard. 6454: On starlike and convex functions of order  $\alpha$ .
- Pincus, Martin. 6994: Gaussian processes and Hammerstein integral equations.
- Pini, M. 4092: Die Radikale des komplexen euklidischen  $n$ -dimensionalen Raumes. 835: (with Trapp, H. W.) Stationäre Krümmungsdichten auf Hyperflächen des euklidischen  $R_{n+1}$ .
- Pinsky, Mark. 3651: Differential equations with a small parameter and the central limit theorem for functions defined on a finite Markov chain.
- Pintacuda, Nicolò. 3874: Un criterio per individuare la relazione logica tra due eventi con una serie di esperienze. 7209: (with Forte, Bruno) Information fornita per une expérience.
- Piper, F. C. 2082: On elations of finite projective spaces of even order.
- Piper, W. Stephen. 3514: Algebraic deformation theory.
- Piranian, George. 6464: Bounded functions with large circular variation.
- Pisot, C. See Séminaire P. Dubreil, M.-L. Dubreil-Jacotin, L. Lesieur et C. Pisot, #6139a-b, and Séminaire Delange-Pisot-Poitou, #6140a-b.
- Pitchev, T. S. 1335: The asymptotic behavior of a decomposition due to Harzheim. 4874: The  $\epsilon$ -entropy of certain measures on  $[0, 1]$ .
- Pitman, E. J. G. 6978: On the behaviour of the characteristic function of a probability distribution in the neighbourhood of the origin.
- Pitman, Jane. 154: Cubic inequalities.
- Pitel', B. G. 549: Optimal control in a system of second and third order guidance equations.
- Pivnenko, V. N. 3402: The resolvent of a self-adjoint extension of an elliptic operator.
- Pjatak, Ju. F. 391: The smoothness in a closed domain of analogs of the Cauchy type integral.
- Plaatz, Otto. 6551: A note on asymptotic stability.
- Plafker, Stephen M. 5700: (with Ionescu Tulcea, Camil) Dilatations et extensions scalaires sur les espaces de Banach.
- Platonov, V. P. 1516: Topological groups with a compact spectrum.
- Platonova, V. I. 839: Certain curves on a surface in three-dimensional affine space.
- Plaumann, Peter. 2894: Klassen zusammenhängender Gruppen.
- Pleasant, J. C. 2805: Submodules which determine certain linear mappings.
- Pleszczyńska, E. 5976: A sample coefficient of monotonic dependence. I.
- Piliš, A. 485: (with Olech, C.) Monotonicity assumption in uniqueness criteria for differential equations.
- Pliss, V. A. 6545: On the theory of invariant surfaces.
- Plonka, J. 1294: On a method of construction of abstract algebras. 1295: A representation theorem for idempotent medial algebras. 2663: On some properties and applications of the notion of the sum of a direct system of abstract algebras.
- Plotkin, B. I. 3897: (with Kuroš, A. G.; Senekin, N. F. and Ševrin, L. N.) Petr Grigor'evič Kontorovič: Obituary.
- Plotnikov, A. A. 3160: Passage to the limit  $\tau \rightarrow 0$  for a system of equations of neutral type with small retardation of  $\tau$ .
- Plotnikov, V. I. 4090: The convergence of finite-dimensional approximations (in the problem of the optimal heating of an inhomogeneous body of arbitrary shape). 5599: A problem of optimal control for stationary systems with distributed parameters. 6744: (with Morozov, S. F.) Integral inequalities of Wirtinger type.
- Plummer, Michael D. 3950: On minimal blocks.
- Pluvineau, François. 6957: (with Fedida, Edmond) Sur les structures feuilletées déterminées par les équations polynomiales.
- Plymen, Roger J. 2504: A modification of Piron's axioms. 6765:  $C^*$ -algebras and Mackey's axioms.
- Podinovskii, V. V. 2063: A question concerning the existence of solutions of optimization problems with "fixed time".
- Podstavkin, Ju. 2194: (with Egorov, V. I.) A definition of dimension.
- Poe, R. L. 2179: (with Hildebrand, S. K.) The separation axioms for invertible spaces.
- Pofnaru, Valentin. 2251: Constructions on low-dimensional differentiable manifolds.
- Pogorelov, A. V. 6880: An a priori estimate of the principal radii of curvature of a closed convex hypersurface, depending on its Gaussian curvature.
- Pogrebynskiĭ, I. B. 5073: History of qualitative methods in the theory of differential equations. See also History of national mathematics in four volumes. Vol. II, 1801-1917, #3888.
- Pohlmann, Henry. 4080: Algebraic cycles on abelian varieties of complex multiplication type.
- Poitou, G. See Séminaire Delange-Pisot-Poitou, #6140a-b.
- Pokalo, A. K. 691: Limiting values of generalized means of Fourier series at a point of discontinuity.
- Pokorný, Ju. V. 2049:  $B$ -positive and  $B$ -monotone operators. 713: (with Muhamadiev, E.) Positive solutions of nonlinear integral equations.
- Polák, Václav. 2203: A note to D. Gale's productivity.
- Polisuk, E. M. 627: Equations of the Laplace and Poisson type in a function space.
- Poljak, B. T. 4091: On the theory of nonlinear optimal control problems.
- Poljak, R. A. See Zuhovickii, S. I. and Avdeeva, I. L., #2523.
- Poljakov, R. V. 656: (with Stepanec, O. I.) The approximation of continuous functions by algebraic polynomials. 657: (with Stepanec, O. I.) The approximation of continuous functions by ordinary polynomials. 6648: (with Stepanec, O. I.) The approximation of quasismooth functions by ordinary polynomials.



- Poljakov, V. Z. 2166: On uniform convergence spaces. 2175: Uniformities on  $X$  and topologies on  $\mathcal{S}(\mathcal{S}(X))$ .
- Poljanskii, A. A. 5176: An analogue of the Hardy-Littlewood equation.
- Pollak, Barth. 6381: Generation of local integral orthogonal groups in characteristic 2.
- Pollard, Harry. 7118: (with Saari, Donald G.) Singularities of the  $n$ -body problem. I.
- Pollock, John L. 42: The logic of logical necessity.
- Polomoinova, R. S. 2973: Extremal properties of starlike mappings of an annulus.
- Poloski, G. N. See Pološii, G. M.
- Polevickii, Ja. D. 4165: Periodic automorphism groups of extremal groups.
- Polovinkin, V. I. 2446: Weighted cubature formulas.
- Pološii, G. N. See Pološii, G. M.
- Pološii, G. M. 442: Inversion formulas for the fundamental integral representation of  $p$ -analytic functions of  $z = x + iy$  with characteristic  $p = x^h$ . 6043: ★The method of summary representation for numerical solution of problems of mathematical physics. 6044: ★Numerische Lösung von Randwertproblemen der mathematischen Physik und Funktionen diskreten Arguments. 6470: The basic integral representation of  $p$ -analytic functions with characteristic  $p = e^{2\pi i x/h}$  and its inversion formulas. 6471: Affine transformations of  $p$ -analytic and  $(p, q)$ -analytic functions of a complex variable.
- Pološii, G. N. See Pološii, G. M.
- Pólya, G. 1210: ★Mathematics and plausible reasoning. Vol. I: Induction and analogy in mathematics. Part I, II. 2434: Graeffe's method for eigenvalues.
- Pommerenke, Ch. 4246: On the logarithmic capacity and conformal mapping. 3013: (with Kövari, T.) On Faber polynomials and Faber expansions.
- Pomraning, G. C. 3751: Reciprocal and canonical forms of variational problems involving linear operators.
- Ponomarenko, O. I. 4875: Homogeneous random fields with values in a Hilbert space.
- Ponomarenko, Paul 5190: Errata: The Galois theory of infinite purely inseparable extensions.
- Ponomarev, V. A. 5325: (with Gel'fand, I. M.) Indecomposable representations of the Lorentz group.
- Pontrjagin, L. 1173: Linear differential games. I, II.
- Pool, James C. T. 5095: Baer\*-semigroups and the logic of quantum mechanics.
- van der Poorten, A. J. See Van der Poorten, A. J.
- Popa, I. 868: (with Gheorghiev, Gh.) Espaces à deux métriques données.
- Popa, Nicolae 4510: Produits tensoriels ordonnés.
- Popescu, Nicolae. 1436: Elements of the theory of sheaves. V.
- Popov, Ju. D. 4886: Linear extrapolation of an  $n$ -dimensional homogeneous isotropic random field observable on a sphere.
- Popović, V. E. 6039: Estimate of the error in the method of successive approximations.
- Popoviciu, Tiberiu. 1833: Sur les fractions continues de J. Mikusinski. 2435: Sur la délimitation de l'erreur dans l'approximation des racines d'une équation par interpolation linéaire ou quadratique. 4438: Remarques sur le reste de certaines formules d'approximation d'une différence divisée par des dérivées.
- Popoviciu-Moldovan, Elena. 1847: Propriétés des ensembles interpolatoires comparables par rapport à leur  $n$ -valence.
- Porath, Günter. 5690: Störungsrechnung für lineare Volterra'sche Integralgleichungen.
- Porsching, T. A. 1385: Analytic eigenvalues and eigenvectors. 6297: On the spectrum of a matrix arising from a problem in reactor kinetics. 5235: (with Hall, C. A.) A separation theorem for non-symmetric matrices. 7078: (with Hall, C. A.) Computing the maximal eigenvalue and eigenvector of a positive matrix.
- Port, Sidney C. 980: A remark on hitting places for transient stable process. 4880: Potentials associated with recurrent stable processes. 2327: (with Stone, Charles J.) Hitting times for transient random walks on groups.
- Porter, A. Duane. 2780: Orthogonal similarity for skew matrices in  $GF(q)$ . 4103: (with Adams, John) Similarity and orthogonal similarity in a finite field.
- Porter, J. R. 4776: (with Bonnett, D. A.) Matrix characterizations of topological properties.
- Porter, William A. 5464: On the matrix Riccati equation.
- Poshusta, R. D. 1131: Permutational symmetry of reduced density matrices.
- Pospisil, Leopold. 5971: (with Price, Derek J. de Solla) A survival of Babylonian arithmetic in New Guinea?
- Post, K. A. 1536: (with de Bruijn, N. G.) A remark on uniformly distributed sequences and Riemann integrability.
- Potemkina, A. V. 3395: On the perturbation theory of a continuous spectrum.
- Poteraşu, Florin. See Poteraşu, Florin.
- Poteraşu, Florin. 6620: (with Ciobanu, Liviu; Oprea, Arsenie; Bereovici, Malca and Deleanu, Spiridon) Application of some classes of solutions to polyvibrating equations in the study of the dynamics of mechanisms and machines. I. 5430: (with Ciobanu, Liviu; Oprea, Arsenie; Bereovici, Malca and Triandaf, Ana) Nuove classi di funzioni spettanti ai sistemi funzionali alle derivate totali. I. Funzioni ipergeometriche generalizzate.
- Potlov, V. V. 1699: The behavior of the trajectories of systems of homogeneous type in the neighborhood of an isolated singular point.
- Pouget, Jean. 5911: Étude d'un basculeur associé à un processus de Poisson composé.
- Pousson, H. R. 783: Systems of Toeplitz operators on  $H^2$ . 3377: Systems of Toeplitz operators on  $H^2$ . II.
- Povolockii, A. I. 714: The solvability of a system of nonlinear integral equations. 2265: Critical points of functions on  $n$  variables. 3297: (with Fetisov, V. G.) A weakly connected system of singular integral equations.
- Povy, Lucien. 7107: Sur la recherche d'un domaine de stabilité pour les systèmes échantillonnés non linéaires par l'utilisation d'une classe de fonctions de Ljapunov.
- Powell, R. E. 1856: (with Boehme, T. K.) Positive linear operators generated by analytic functions.
- Powers, R. T. 1136: (with Doplicher, S.) On the simplicity of the even CAR algebra and free field models.
- Poyatos, Francisco. See Poyatos Suarez, Francisco.
- Poyatos Suarez, Francisco. 5259: Irreducible decompositions of certain algebraic structures in an internal direct sum. 6389: Commutative semigroups without inverses. A structure theorem. 6390: Formulas of length for commutative semigroups.
- Pozzi, Gianni A. 5553: Problemi di Cauchy e problemi ai limiti per equazioni di evoluzione del tipo di Schrödinger lineari e non lineari. I. L'equazione lineare astratta. 6406: Continuous unitary representations of locally compact groups. Application to quantum dynamics. I. Decomposition theory.
- Prabhu Ajaanekar, S. G. 3650: On unordering best estimator in Horvitz and Thompson's  $T_1$  class of linear estimators.
- Prachar, K. 1328: Bemerkung zu der Arbeit von Herrn H. Bekić.
- de la Pradelle, Arnaud. 3040: Approximation et caractère de quasi-analyticité dans la théorie axiomatique des fonctions harmoniques.
- Pradines, Jean. 6861: Géométrie différentielle au-dessus d'un groupoïde. 6969: Troisième théorème de Lie pour les groupoides différentiables.
- Prakas Rao, B. L. S. 3613: On a characterization of probability distributions on locally compact abelian groups. 7001: On a characterization of symmetric stable processes with finite mean.
- Prasad, B. N. See Singh, U. N., #3900.
- Prasad, Govind. 1858: On strong Nörlund summability of Fourier series.
- Prasad, J. 651: Some interpolatory polynomials on Hermite abscissas. 4465: (with Saxena, R. B.) Some interpolatory properties of Laguerre polynomials.
- Prasad, Manoranjan. 153: Note on an extreme form.
- da Prato, G. See Da Prato, G.
- Pratov, A. 5732: Stability of the solutions of integral equations. I. 5733: Stability of solutions of integral equations. II.
- Preece, D. A. 2618: Incomplete block designs with  $v = 2k$ .
- Preobrazenskii, S. P. 392: I. I. Privalov's singular integrals.
- Prelić, Slavila B. 5537: Une classe d'équations matricielles et l'équation fonctionnelle  $f^2 = f$ .
- Prestel, Alexander. 4019: Die elliptischen Fixpunkte der Hilbertschen Modulgruppen.

- Previale, Flavio. 46: Il "problema del prefisso" per i calcoli logici con più tipi di variabili.
- Price, C. F. 6040: An offset vector iteration method for solving two-point boundary-value problems.
- Price, Derek J. de Solla. 5071: (with Pospisil, Leopold) A survival of Babylonian arithmetic in New Guinea?
- Price, J. J. 682: An algebraic characterization of certain orthonormal systems.
- Price, Martin. 1849: Variation convergence for Bernstein polynomials.
- Price, T. M. 2219: A knotted cell pair with knot group  $Z$ .
- Prihoda/ka, O. I. 3455: (with Deniako, S. V.)  $\Delta$ -surfaces of a rectilinear congruence.
- Prilepko, A. I. 1637: Inverse problems of potential theory. 3025: Some conditions for the uniqueness of the solution of the exterior inverse problem of potential theory with variable density.
- Prill, David. 4840: Über lineare Faserräume und schwach negative holomorphe Geradenbündel.
- Primačuk, L. P. 3020: A boundary value problem with conjugacy.
- Primak, M. E. See Zuhovickii, S. I. and Avdeeva, L. I., #2523.
- Procenko, V. S. 1919: A type of dual integral equations.
- Procesi, C. 251: Non commutative Jacobson-rings. 256: Non-commutative affine rings.
- Proctor, Charles H. 6093: (with Assakul, Kwanchai) Testing independence in two-way contingency tables with data subject to misclassification.
- Prokhorov, V. I. 1873: The Fourier coefficients of functions evenly or oddly extended.
- Prohorov, A. V. 6979: A certain probabilistic inequality. 6980: Multidimensional analogues of S. N. Bernstein's inequalities.
- Prohorov, Ju. V. 5915: The extension of S. N. Bernstein's inequalities to a multidimensional case.
- Prohorov, L. V. 907: Stochastic processes in pseudoeuclidean space. 968: A certain stochastic process in pseudo-euclidean space.
- Prokhorov, E. V. 1132: Unitary representations of the group  $ISL(3, c)$ .
- Prokhorov, L. V. See Prohorov, L. V.
- Prokopov, G. P. 6015: The numerical realization of V. S. Vladimirov's variational principle.
- Proschan, Frank. 4930: (with Barlow, Richard E.; Madanaky, Albert and Scheuer, Ernest M.) Statistical estimation procedures for the "burn-in" process.
- Proskuriakov, A. P. See Proskurjakov, A. P.
- Proskurjakov, A. P. 3130: Stability of single-frequency periodic solutions of quasi-linear self-contained systems with two degrees of freedom.
- Prosperi, G. M. 5910: (with Pauri, M.) Canonical realizations of the rotation group.
- Prösdorf, Siegfried. 6713: Die Indexformel für ein System eindimensionaler singulärer Integralgleichungen nicht normalen Typs.
- Prosser, Reese T. 3393: On a similarity invariant for compact operators.
- Prudnikov, A. P. 1899: Existence of singular points for functions representable by a Laplace integral.
- Pruitt, William E. 3648: (with Jain, Naresh) The correct measure function for the graph of a transient stable process.
- Prullage, D. L. 6646: Summability in topological groups. II.
- Prvanović, Mileva. 4749: Riemannian spaces which contain a geodesic direction field.
- Pryce, J. D. 765: A counterexample concerning type in semi-algebras of continuous functions.
- Plák, Vlastimil. 6304: Spectral radius, norms of iterates, and the critical exponent. 6739: Mappings into spaces of operators.
- Ptolemaeus, Claudius. See Ogannisjan, V. A., #3892.
- Pucci, Carlo. 17/9: Equazioni ellittiche con soluzioni in  $W^{2,p}$ ,  $p < 2$ .
- Pugh, Charles C. 2256: The closing lemma. 2257: An improved closing lemma and a general density theorem. 3593: Structural stability on  $M$ . 4828: A generalized Poincaré index formula. 535: (with Peixoto, M. M.) Structurally stable systems on open manifolds are never dense.
- Puharev, N. K. 6837: On systems with one operation that coordinatize the finite affine planes.
- Puhnačev, V. V. 3123: Asymptotics of the solutions of a linear ordinary second order differential equation with transition point dependent on a parameter.
- Pukansky, L. 4205: On the unitary representations of exponential groups. 4236: On the characters and the Plancherel formula of nilpotent groups.
- Pullman, N. J. 1266: A property of infinite products of Boolean matrices.
- Pultr, Aleš. 5263: Limits of functors and realisations of categories. 6237: A remark on selective functors. 6352: Eine Bemerkung über volle Einbettungen von Kategorien von Algebren. 6344: (with Hedrlin, Z. and Šedivá-Trnková, Věra) Concerning a categorical approach to topological and algebraic theories.
- Pulvirenti, Giuseppe. 4421: Sulla sommabilità  $L^2$  delle derivate prime delle soluzioni deboli del problema di Cauchy-Dirichlet per le equazioni lineari del secondo ordine di tipo parabolico. 804: (with Santagati, Giuseppe) Controlli lineari negli spazi di Orlicz. 4378: (with Santagati, Giuseppe) Sulla teoria dei controlli lineari negli spazi di Orlicz di funzioni a valori vettoriali.
- Pumpilin, Dieter. 189: Über die Klassenzahl und die Grundeinheit des reellquadratischen Zahlkörpers.
- Puppe, Dieter. 2236: (with Koch, Winfried) Differenzierbare Strukturen auf Mannigfaltigkeiten ohne abzählbare Basis.
- Purdum, P. W. 3616: (with Williams, J. H.) Cycle length in a random function.
- Puri, Madan L. 3711: Multi-sample scale problem: Unknown location parameters. 1044: (with Sen, Pranab Kumar) On Chernoff-Savage tests for ordered alternatives in randomized blocks. 2358: (with Sen, Pranab K.) On a class of multivariate multisample rank order tests. II. Tests for homogeneity of dispersion matrices. 2360: (with Sen, Pranab Kumar) Correction to: "On the theory of rank order tests for location in the multivariate one sample problem". 3712: (with Sen, Pranab K.) On a class of rank order estimators of contrasts in Manova. 7041: (with Sen, Pranab Kumar) On a class of multivariate multisample rank-order tests.
- Puri, Prem S. 985: Some further results on the birth-and-death process and its integral.
- Pursell, Lyle E. 4586: Rings of continuous functions on open convex subsets of  $R^n$ .
- van der Put, M. 2027: The ring of bounded operators on a non-Archimedean normed linear space. 4550: (with van Tiel, J.) Espaces nucléaires non archimédiens.
- Putnam, C. R. 2030: Eigenvalues and boundary spectra. 4651: The spectra of operators having resolvents of first-order growth. 5735: Wiener-Hopf operators and absolutely continuous spectra. II.
- Putnam, Hilary. 5096: (with Hensel, Gustav) On the notational independence of various hierarchies of degrees of unsolvability.
- Puttaswamaiah, B. M. 1496: On semigroups of quotients.
- Pyhova, T. A. 3867: (with Mel'c, I. O. and Uskov, G. V.) Multidimensional statistical linearization of functions containing factors of power, exponential, trigonometric, and  $\delta$ -function type.
- Pyke, Ronald. 2357: (with Shorack, Galen R.) Weak convergence of a two-sample empirical process and a new approach to Chernoff-Savage theorems. 5967: (with Shorack, Galen R.) Weak convergence and a Chernoff-Savage theorem for random sample sizes.
- Pykhova, T. A. See Pyhova, T. A.
- Pym, J. S. 86: Some results on transversals of families of subsets. 4561: Notes on the Stone property in vector lattices.
- Quade, Dana. 1045: Rank analysis of covariance.
- Quade, Wilhelm. 3802: Über die algebraische Struktur des Grössenkalculus der Physik. See also de Jong, Frits J., #3514.
- Querré, J. 2884: Plus grand groupe image homomorphe et isotone d'un monoïde ordonné: Caractérisations des anneaux "clos".
- Quisenberry, C. P. 3694: (with Gossaman, M. P.) Nonparametric discrimination using tolerance regions.
- Quillen, Daniel G. 3572: Some remarks on étale homotopy theory and a conjecture of Adams.
- Quintas, Louis V. 6211: The least number of edges for graphs having symmetric automorphism group.

- Rabinovič, A. B. 5510: The optimization of certain linear systems with distributed parameters.
- Rabinovič, M. G. 3316: Lattices with a multiplication by real numbers and their application to the characterization of the positive part of a  $K$ -space.
- Rabinovič, V. S. 777: The multidimensional Wiener-Hopf equation for  $\cos \alpha$ .
- Rabinowitz, Philip. 2397: Applications of linear programming to numerical analysis. 2447: Error bounds in Gaussian integration of functions of low-order continuity.
- Rabotnikov, Ju. I. 3663: On the theory of linear stochastic differential equations with non-Markov type solutions.
- Rachford, H. H., Jr. 3788: Rounding errors in alternating direction methods for parabolic problems.
- Raddik, I. A. See Zuhovickij, S. I. and Avdeeva, L. I., #2523.
- Radcliffe, J. 1025: The distributions of certain factors occurring in discriminant analysis.
- Rademacher, Hans. 2691: Eine Bemerkung über die Hecke'schen Operatoren  $T(n)$ . 5065: (with Toeplitz, Otto) ★Numbers and figures. Samples of mathematical reflections for those fond of mathematics.
- Radhakrishna Rao, C. See Rao, C. Radhakrishna.
- Radicati, L. A. 3818: The SU(6) model of elementary particles.
- Radjavi, Heydar. 4109: Simultaneous unitary invariants for sets of matrices. 4635: (with Rosenthal, Peter) Invariant subspaces and weakly closed algebras.
- Radkevič, E. V. 5531: The second boundary value problem for a second order equation with non-negative characteristic form.
- Rado, R. 234: An extension of Sylvester's law of inertia. 5345: (with Besicovitch, A. S.) A plane set of measure zero containing circumferences of every radius.
- Radu, Alexandru Gh. 272: Quelques observations sur les sites.
- Radjabov, N. R. 6451: Integral representations and their inversion for a generalized Cauchy-Riemann system with a singular line.
- Radnikievskij, Boguslav. See Radziszewski, Boguslaw.
- Radziszewski, Boguslaw. 3494: On stability conditions for completely regular systems of differential equations.
- Rafal'son, S. Z. 3251: The approximation of functions in the mean by Fourier-Gegenbauer sums. 3259: The approximation of functions by Fourier-Jacobi sums.
- Rafatov, R. 4380: The structure of the analytic expression for the solutions of a certain class of systems of operator differential equations. 4540: The structure of the analytic expression for the solutions of a certain class of operator integro-differential equations.
- Raffin, Claude. 7171: Programmes linéaires d'appui d'un programme convexe. 7172: Sur la dualité en programmation convexe.
- Ragab, F. M. 6501: (with Simary, M. A.) Definite integrals involving Whittaker functions.
- Raggi Cárdenas, Francisco Federico. 2793: Localization in noncommutative rings.
- Raghavan, T. E. S. 5038: Theory of games in relation to positive operators.
- Ragunathan, M. S. 2898: Cohomology of arithmetic subgroups of algebraic groups. I, II. 5894: A note on quotients of real algebraic groups by arithmetic subgroups.
- Ragimhanov, R. K. 4321: On the question of solvability of boundary value problems for ordinary differential equations with discontinuous right hand side.
- Ragnedda, Pasquale. 4263: (with Bombieri, Enrico) Sulle deficienze delle funzioni meromorfe di ordine inferiore finito.
- Rahman, Q. I. 1621: On the monotonicity of certain functionals in the theory of analytic functions. 1609: (with ~~Rahman, Q. I.~~) Function of exponential type belonging to  $L^p$  on the real line. 356: (with Labelle, G.) L'influence des zéros sur la borne dans le théorème de Markoff pour les polynômes sur l'intervalle unite. 5374: (with Labelle, Gilbert) Remarque sur la moyenne géométrique de fonctions univalentes convexes.
- Raiffa, Howard. 2344: (with Schlaifer, Robert) ★Applied statistical decision theory.
- Raikov, D. A. See Robertson, A. P. and Robertson, Wendy J., #4542.
- Rainer, I. See Reiner, Irving.
- Raj, Des. 6002: ★Sampling theory.
- Rajagopal, C. T. 6152: K. Ananda-Rau.
- Rajagopalan, M. 335: Topologies in locally compact groups. 5322: Structure of monogenic groups. 3279: (with Berg, I. D. and Rubel, L. A.) Uniform distribution in locally compact Abelian groups.
- Rajwade, A. R. 4079: Arithmetic on curves with complex multiplication by  $\sqrt{-2}$ .
- Rakitskij, Ju. V. 2453: New methods of computing the initial tabular values in the numerical integration of ordinary differential equations.
- Rakovšik, L. S. 5736: Certain rings of operators. 5737: Noether's theorems for a certain class of integral equations.
- Ramachandra, K. 165: Contributions to the theory of transcendental numbers. I, II.
- Ramachandran, B. 950: ★Advanced theory of characteristic functions.
- Ramadanov, I. 1632: Sur une propriété de la fonction de Bergman.
- Ramakrishnan, Alladi. 5246: On the relationship between the  $L$ -matrix hierarchy and Cartan spinors. 5247:  $L$ -matrices, quaternions and propagators. 5245: (with Vasudevan, R.; Ranganathan, N. R. and Chandrasekaran, P. S.) A generalization of the  $L$ -matrix hierarchy. See also Symposia on theoretical physics and mathematics, Vol. 6, #6073.
- Ramazanov, M. D. 4410: A priori estimates of solutions of the Dirichlet problem for certain hypoelliptic equations. 4607: Function spaces and the Fourier transform.
- Ramzanova, K. Š. 4725: The classification of two-dimensional surfaces in  $E_4$  according to type of congruences of ideal lines of the first and second kind.
- Ramirez, Donald E. 696: Uniform approximation by Fourier-Stieltjes coefficients.
- Ramm, A. G. 1755: The principle of the limit amplitude. 1817: (with Levitan, B. M.) The asymptotic behavior of eigenvalues for the case when the potential depends on the parameter.
- Ramskij, Ju. S. 3760: The problem of the convergence of cubature processes.
- Ran, A. 1566: A non-embeddable composite of embeddable functions.
- Randolph, John F. 1211: ★Basic real and abstract analysis.
- Rangachari, M. S. 5618: On a generalization of the Laplace transform.
- Ranganathan, N. R. 5245: (with Ramakrishnan, Alladi; Vasudevan, R. and Chandrasekaran, P. S.) A generalization of the  $L$ -matrix hierarchy.
- Ranganathan, S. 3700: (with Kahiragar, A. M.) Analysis of a class of two-way designs with recovery of inter-row and inter-column information.
- Rangarajan, S. K. 6499: Some identities involving Kampé de Fériet's double hypergeometric functions. I.
- Ranga Rao, R. 1526: (with Parthasarathy, K. R. and Varadarajan, V. S.) Representations of complex semi-simple Lie groups and Lie algebras.
- Rani, Asha. 5850: (with Singal, M. K.) A note on almost-countably paracompact spaces.
- Rankin, R. A. 2611: Common transversals.
- Rao, A. Narasima. See Narasima Rao, A.
- Rao, B. L. S. Prakasa. See Prakasa Rao, B. L. S.
- Rao, C. Radhakrishna. 227: Calculus of generalized inverses of matrices. I. General theory.
- Rao, D. Ramakrishna. 4369:  $L^p$ -stability of non-linear differential-difference equations.
- Rao, G. V. N. Kameswara. See Kameswara Rao, G. V. N.
- Rao, J. N. K. 3724: Some nonresponse sampling theory when the frame contains an unknown amount of duplication. 2396: (with Pereira, Norma P.) On double ratio estimators.
- Rao, K. Nageswara. See Nageswara Rao, K.
- Rao, M. M. 909: Local functionals and generalized random fields. 3342: Almost every Orlicz space is isomorphic to a strictly convex Orlicz space.
- Rao, P. R. V. 1669: (with Ukidave, V. H.) Some separable forms of the Riccati equation.
- Rao, R. Ranga. See Ranga Rao, R.
- Rao, S. Subba. See Subba Rao, S.
- Rao, T. J. 3725: On the allocation of sample size in stratified sampling.
- Rao, V. See Venugopal Rao, V.
- Rao, V. V. Narayan. See Narayan Rao, V. V.
- Rao, V. Venu Gopal. See Venugopal Rao, V.

★ Rao, N. Venkateswara. 3026: A uniqueness theorem for harmonic functions.  
3027: Normal families of harmonic functions.



- Rapaport, Elvira Strasser. 5278: Groups of order 1: Some properties of presentations.
- Rapaport, Anatol. 945: (with Na, Hwa Sung) A formula for the probability of obtaining a tree from a graph constructed randomly except for an "exogamous bias".
- Rapaport, E. O. 1181: Linear problems of the theory of optimal processes. 5048: Certain stochastic optimal control problems. 5511: The solution of a certain class of optimal control problems. 7174: Certain problems of infinite-dimensional programming.
- Ralevskii, P. K. 2124: ★Riemannian geometry and tensor analysis.
- Rasheed, M. A. 1892: On bounded functions defined in a group and taking values in a Hilbert space with almost periodic differences.
- Rashevsky, N. 6145: ★Looking at history through mathematics.
- Raskin, V. G. 6588: (with Sobolevskii, P. E.) A priori estimates of the solutions of a certain class of nonlinear nonstationary equations.
- Rasulov, M. L. 6597: A solution of the Cauchy problem and the mixed problem for a certain parabolic system. 6611: The fundamental matrix of solutions of the system of the spectral problem of heat and mass transfer.
- Rathie, P. N. 1656: Some finite and infinite series for  $F_2$ ,  $F_4$ ,  $\psi_2$  and  $G$ -functions. 3063: Some infinite series for  $F_2$ ,  $F_4$ ,  $G$ -functions.
- Rauch, Harry E. 1590: Functional independence of theta constants. 1591: Errata: "A transcendental view of the space of algebraic Riemann surfaces".
- Rautenberg, Wolfgang. 2595: Unterscheidbarkeit endlicher geordneter Mengen mit gegebener Anzahl von Quantoren.
- Ray, B. K. 690: (with Mohanty, R.) Correction to: "On the non-absolute summability of a Fourier series and the conjugate of a Fourier series by a Nörlund method". 6678: (with Mohanty, R.) On the absolute logarithmic summability of a derived Fourier series.
- Rayburn, Marlon. 2619: On the Borel fields of a finite set.
- Rayleigh, John William Strutt, Third Baron. See Rayleigh, Robert John Strutt, Fourth Baron, #20.
- Rayleigh, Robert John Strutt, Fourth Baron. 20: ★Life of John William Strutt, Third Baron Rayleigh, O.M., F.R.S.
- Raymon, L. 653: (with Newman, D. J.) A class of curves on which polynomials approximate efficiently.
- Raymond, Frank. 2230: (with Kwun, Kyung Whan) Spherical manifolds.
- Raynaud, M. 2758: Compléments sur les sous-ttores d'un préschéma en groupes. Application aux groupes lisses.
- Rayner, C. B. 6949: Immersions for which the Gauss map is nowhere singular.
- Razafindrakoto, André. 1062: Solutions numériques de l'équation de Poisson à trois variables par la méthode de Monte-Carlo.
- Radašev, G. 1934: Asymptotic properties of the solutions of a certain class of nonlinear integro-differential equations. 722: (with Ved', Ju. A.) The stability of solutions of nonlinear integro-differential equations.
- Rea, Claudio. 2248: Un'osservazione sulle deformazioni di una varietà completa. 6862: Sulla riducibilità di una famiglia di connessioni.
- Read, G. A. 1883: Expansions in series of Gontcharoff polynomials. 4273: Expansions in series of polynomials.
- Read, K. L. Q. 1057: (with Ashford, J. R.) A system of models for the life cycle of a biological organism.
- Read, Ronald C. 104: An introduction to chromatic polynomials. 5108: The use of  $S$ -functions in combinatorial analysis.
- Read-Derchain, C. 3802: Sur les tétraèdres de É. Cartan des surfaces non réglées. 6652: Sur les surfaces de Klein-Lie.
- Rearick, David. 6255: Operators on algebras of arithmetic functions. 6256: The trigonometry of numbers.
- Reay, John R. 824: An extension of Radon's theorem. 2088: (with Bonnie, William E.) Interior points of convex hulls.
- Rebolla, L. 2448: Formule di quadratura di tipo Gaussiano con valori delle derivate dell'integrando. 3771: Un procedimento di stabilizzazione per l'integrazione numerica di equazioni differenziali ordinarie. 4963: Riduzione del raggio spettrale per la stabilizzazione numerica nella soluzione di sistemi differenziali ordinari.
- Reddy, William. 2206: Almost periodic semigroups in transformation groups.
- Redheffer, Raymond M. 687: Elementary remarks on completeness. 1615: Functions with real poles and zeros. 5394: Eine Nevanlinna-Picardache Theorie en miniature.
- Red'kov, M. I. 1582: Extremal problems in the class  $S_1(\beta)$ .
- Reed, Ellen E. 4778: (with Thron, W. J.) Uniform structures on the lattices of open sets.
- Reed, Frank. 2286: (with Leipnik, Roy) Monoidal composition of distributions.
- Reed, Kennard W., Jr. 4541: On weak and strong solutions for the neutron transport equation.
- Rees, Charles. 3275: (with Shah, S. M.) On the absolute Nörlund summability of a Fourier series.
- Rege, Neela S. 4175: On certain classical groups over Hasse domains. 5186: On the finite generation of orthogonal groups over Hasse domains.
- Reichardt, Hans. 5806: ★Vorlesungen über Vektor- und Tensorrechnung.
- Reichaw, M. 6438: Supplement to: "On the convergence of superpositions of a sequence of operators". 2775: (with Hanani, H. and Netanyahu, E.) Eigenvalues of infinite matrices.
- Reichbach, Julius. 6174: Some methods of formal proofs. II. Generalization of the satisfiability definition.
- Reichel, Georg. 2289: Über die Produktdarstellung der totalen Verteilungswahrscheinlichkeit bei mehreren Ausscheidursachen.
- Reid, William T. 1682: Generalized linear differential systems and related Riccati matrix integral equations. 1683: Some limit theorems for ordinary differential systems. 4322: Variational methods and boundary problems for ordinary linear differential systems.
- Reilly, N. R. 2877: Bisimple inverse semigroups.
- Reiner, Irving. 5270: The action of an involution in  $\tilde{K}^*(EG)$ .
- Reischer, Corina. 3605: (with Simboan, Gabriel and Theodorescu, R.) ★Theory of probability.
- Reissig, R. 6539: Über die Beschränktheit der Lösungen einer nicht-linearen Differentialgleichung vierter Ordnung.
- Reiter, Allen. 351: Some measure-theoretic aspects of range-equivalences.
- Reizin', L. E. See Reizins', L.
- Reizins', L. 6531: Local topological equivalence of systems of differential equations. 562: (with Kärklina, I.) The topological equivalence of systems of total differential equations in neighborhoods of closed trajectories.
- Rema, P. S. 5128: On compact topological lattices. 5129: Autotopologies in Boolean algebras.
- Remes, E. Ja. See History of national mathematics in four volumes. Vol. II. 1801-1917, #3888.
- Remerov, P. N. 3890: Integer equations in the mathematics of ancient Egypt according to the pyramids at Giza.
- Renault, Guy. 1408: Anneaux réduits non commutatifs.
- Ren Fu-yao. See Jen Fu-yao.
- Renggli, H. 395: On removable sets for conformal mappings. 406: Slight modifications of Riemann surfaces and quasiconformal mappings. 2985: Doppelverhältnisse und quasikonforme Abbildungen.
- Renschuch, Bodo. 2749: Über Multiplizitätsdefinitionen und Folgerungen.
- Rentschler, Rudolf. 243: (with Gabriel, Pierre) Sur la dimension des anneaux et ensembles ordonnés.
- Rényi, Alfréd. 3606: Probabilistic methods in analysis. I. 4946: (with Sulanke, R.) Zufällige konvexe Polygone in einem Ringgebiet.
- Replegle, J. 6106: (with Holcomb, B. D. and Burrus, W. R.) The use of mathematical programming for solving singular and poorly conditioned systems of equations.
- Rescigno, Aldo. 1174: (with Segre, Giorgio) On some topological properties of the systems of compartments. 1175: (with Segre, Giorgio) On some metric properties of the systems of compartments.
- Reisnajak, Ju. G. 754: Generalized derivatives and differentiability almost everywhere. 1595: A condition for boundedness of the index for mappings with bounded distortion. 3171: The set of singular points of solutions of certain nonlinear equations of elliptic type. 6458: Mappings with bounded distortion as extremals of integrals of Dirichlet type. 6459: Stability theorems for mappings with bounded distortion. 1594: (with Šabat, B. V.) Quasiconformal transformations in space.

- Restrepo, Guillermo.** 6729: On the closed graph theorem.
- Restrepo, R. A.** 7179: (with Cooper, J. N.) Some problems of attack and defense.
- Retherford, J. R.** 738: On  $T$ -bases in Banach spaces. 739: A semi-shrinking basis which is not shrinking.
- Revjakov, M. I.** 2974: On values omitted by univalent functions. 4245: A certain property of the conformal radius. 6455: Certain covering theorems for univalent functions.
- Revuz, Daniel.** 5931: (with Azéma, Jacques and Duflo, Marie) Théorèmes limites pour les processus de Markov récurrents.
- Rezanov, A. I.** 2503: A method of solution of the wave equation with additive potential.
- Reznikoff, Igor.** 1231: Axiomatisation indépendante des ensembles dénombrables de formules en logique intuitionniste. 2581: On independent recursive axiomatisation in intuitionistic logic.
- Refný, Z.** 7201: Ein Problem der linearen Regulierung bei einer nichtstationären Störung von Polynomform. 1187: (with Zaluďová, A. H. and Ullrich, M.) A survey of some recent Czechoslovak work in automatic statistical process control.
- Rhee, Choon Jal.** 3566: Homotopy groups for cellular set-valued functions.
- Rheinboldt, Werner C.** 1061: A unified convergence theory for a class of iterative processes.
- Rhemtulla, A. H.** 1489: A problem of bounded expressibility in free products.
- Rhoades, B. E.** 4461: Triangular summability methods and the boundary of the maximal group.
- Riharić, M.** 7099: (with Greenspan, H. and Hafner, W.) On varying stepsize in numerical integration of first order differential equations.
- Ribeiro Dos Santos, José.** 4980: (with Rigal, Alain) Solutions numériques de l'équation de la chaleur à une dimension par la méthode de sur-relaxation. 7106: (with Rigal, Alain) Discrétisation de l'équation de la chaleur à deux ou trois variables d'espace et résolution par des processus itératifs.
- Ricci, Maria Lavinia.** 3219: Sull'integrazione con la trasformata di Fourier di un'equazione a derivate parziali del tipo di Fuchs.
- Rice, John R.** 1868: Nonlinear approximation. II. Curvature in Minkowski geometry and local uniqueness.
- Rice, Norman M.** 6732: Multiplication in vector lattices.
- Richards, Donald L.** 3870: (with Arnold, Richard F.) Monotone congruence algorithms.
- Richards, Ian.** 1980: More on rings on rings.
- Richardson, John M.** 5498: (with Bellman, Richard) Closure and preservation of moment properties.
- Richardson, R. W., Jr.** 1421: (with Nijenhuis, Albert) Commutative algebra cohomology and deformations of Lie and associative algebras.
- Richert, H.-E.** 6643: (with Srivastava, Pramila) A convexity theorem for strong Riesz summability.
- Richier, Gerhard.** 7015: (with Franken, Peter) Über eine Klasse von zufälligen Punktfolgen.
- Richter, Wolfgang.** 6972: Über die Ergodizität von Summenfolgen. 4969: (with Worm, Dietmar) Ein informationstheoretischer Zugang zum Null-Eins-Gesetz.
- Rickart, C. E.** 3362: Holomorphic convexity for general function algebras.
- Rickert, Neil W.** 4509: Convolution of  $L^p$ -functions.
- Ridder, J.** 1553: Die allgemeine Riemann-Integration in topologischen Räumen. A. B. 4239: Die allgemeine Riemann-Integration in topologischen Räumen. C. 5370: Erweiterung eines von Montel und Tolstov herrührenden Satzes. II.
- Rideau, G.** 7152: On some representations of the anticommutations relations. 3820: (with Cordesse, Antoine) On some representations of the anticommutation relations. III. See also Kahan, Théo, #1127.
- Riechers, A.** 3825: (with Güttinger, W.) Spectral representations of Lorentz invariant distributions and scale transformation.
- Riede, Adolf.** 2266: Lotgoddtische: Morse-Theorie für Probleme mit kompakten Randbedingungen.
- Riedel, Roland.** 4479: Asymptotische Darstellungen von Parameterintegralen mit Exponenten beliebiger Ordnung. 4480: Eine asymptotische Darstellung von Parameterintegralen.
- Rieger, G. J.** 5177: Über die Summe aus einem Quadrat und einem Primzahlquadrat.
- Riekstina, V.** 5391: Asymptotic expansions of some entire functions and of Fourier's integral.
- Riekstina, E.** 1111: ★Methods of mathematical physics. Chapter I. Elements of calculus of variations. 1112: ★Methods of mathematical physics. Chapter II. Special functions. 1113: ★Methods of mathematical physics. Chapter III. Equations of mathematical physics. 1114: ★Methods of mathematical physics. Chapter IV. Functions of a complex variable. 1115: ★Methods of mathematical physics. Chapter V. Laplace transforms. 1116: ★Methods of mathematical physics. Chapter VI. Integral equations. 1117: ★Methods of mathematical physics. Chapter VII. Field theory.
- Riekstynja, V. Z.** See Riekstina, V.
- Riekstyn's, E. Ja.** See Riekstina, E.
- Rigal, Alain.** 4980: (with Ribeiro Dos Santos, José) Solutions numériques de l'équation de la chaleur à une dimension par la méthode de sur-relaxation. 7106: (with Ribeiro Dos Santos, José) Discrétisation de l'équation de la chaleur à deux ou trois variables d'espace et résolution par des processus itératifs.
- Rikimaru, Hisako.** 4675: On the  $(x, t)$ -measurability of the function  $P\Delta u(x, t)$  related to the Navier-Stokes initial value problem. 3220: (with Sibagaki, Wasao) On the E. Hopf's weak solution of the initial value problem for the Navier-Stokes equations.
- Riley, James D.** 3770: (with Bennett, Morris M. and McCormick, Emily) Numerical integration of variational equations.
- Rim, Dock Sang.** 5221: Analytic equivalence of a singular set.
- Rimer, D.** 841: La géométrie différentielle des variétés uniparamétriques de cônes quadratiques dans l'espace projectif à trois dimensions.
- Rimakli-Korsakov, B. S.** 5609a: Self-reciprocal functions related to Dirichlet series. 5609b: The Fourier transform and Hecke's functional equation. 6699: The inversion theorem for  $k$ -transforms in P. I. Romanoski's sense.
- Rinehart, R. F.** 5236: The differential of a primary matrix function.
- Ringel, Gerhard.** 3959: (with Youngs, J. W. T.) Solution of the Heawood map-coloring problem.
- Ringrose, John R.** 4634: (with Pearcy, Carl) Trace-preserving isomorphisms in finite operator algebras.
- Rionero, Salvatore.** 4998: Metodi variazionali per la stabilità asintotica in media in magnetoidrodinamica.
- Riordan, John.** 3966: The number of score sequences in tournaments. 3967: Forests of labeled trees. 2614: (with Graham, R. L.) The solution of a certain recurrence.
- Rios de Souza, Jayme.** 3431: Questions of perpendicularity in the fundamental Riemannian space.
- Risler, Jean-Jacques.** 5209: Sur la réduction de l'algèbre symétrique de l'idéal maximal d'un anneau local.
- Ritter, William E.** 6177: Representability of partial recursive functions in formal theories.
- Rivaud, Juan José.** 910: Fixed point theorems and their applications to ordinary differential equations.
- Rivière, N. M.** 6683: Vector valued multipliers and applications. 6681: (with Littman, W. and McCarthy, C.)  $L^p$ -multiplier theorems. 6682: (with Littman, W. and McCarthy, C.) The non-existence of  $L^p$  estimates for certain translation-invariant operators.
- Rivlin, T. J.** 1952: (with Kelisky, R. P.) A rational approximation to the logarithm. 5403: (with Weiss, B.) Some best polynomial approximations in the plane.
- Rjabcev, I. I.** 6753: A local method for constructing generalized functions.
- Rjabceva, V. M.** 4652: The resolvent set of the spectral function of an isometric operator with infinite defect indices. 4653: A class of spectral functions of a closed isometric operator with finite defect indices.
- Rjabov, Ju. A.** 545: Asymptotic properties of the solutions of weakly nonlinear systems with small retardation.
- Rjabuhin, Ju. M.** 2650: Extremal expansions. 2650: Radicals in categories. 2657: Certain varieties of universal algebras. 4135: On the theory of the lower nil-radical of rings. 6220: On primaries. II. 4136: (with Andrunakievič, V. A.) The existence of the Brown-McCoy radical in Lie algebras. 6320: (with Andrunakievič, V. A.) Rings without nilpotent elements, and completely prime ideals.

- Roach, S. A. 5908: ★The theory of random clumping.
- Robacker, John T. See Wheelon, Albert D., #1060.
- Robbin, Joel W. 3167: On the existence theorem for differential equations.
- Robert, F. 3748: Calcul du rapport maximal de deux normes sur  $R^n$ . 6023: Une "distance" entre deux matrices  $A$  et  $B$ , fonction simple du conditionnement de  $A^{-1}B$ .
- Robert, Pierre. 1958: On some non-Archimedean normed linear spaces. I, II, III, IV, V, VI. 5232: On the group-inverse of a linear transformation. 6228: Sur l'axiomatique des systèmes générateurs, des rangs, etc.
- Roberts, F. D. K. 6210: Random minimal trees. 946: (with Storey, S. H.) A three-dimensional cluster problem.
- Roberts, G. T. 6411: (with Moss, R. M. F.) A creeping lemma.
- Roberts, J. E. 273: A characterization of initial functors. 3626: Rigged Hilbert spaces in quantum mechanics.
- Roberts, J. H. 880: (with Slaughter, F. G., Jr.) Metric dimension and equivalent metrics.
- Robertson, A. P. 367: (with Kingman, J. F. C.) On a theorem of Lyapunov. 4542: (with Robertson, Wendy J.) ★Topological vector spaces.
- Robertson, James B. 974: Orthogonal decompositions of multivariate weakly stationary stochastic processes.
- Robertson, Lewis. 6394: (with Schreiber, Bert M.) The additive structure of integer groups and  $p$ -adic number fields. 6397: (with Leptin, H.) Every locally compact map group is unimodular.
- Robertson, Tim. 5970: (with Waltman, Paul) On estimating monotone parameters.
- Robertson, V. D. See Robertson, Wendy J.
- Robertson, Wendy J. 4542: (with Robertson, A. P.) ★Topological vector spaces.
- Robinson, Abraham. 21: Some thoughts on the history of mathematics.
- Robinson, Derek J. S. 4166: Residual properties of some classes of infinite soluble groups. 6366: A note on finite groups in which normality is transitive.
- Robinson, Derek W. 3829: Statistical mechanics of quantum spin systems. II. 1146: (with Ruelle, David) Mean entropy of states in classical statistical mechanics.
- Robinson, J. 3703: (with Balaam, L. N.) Variance heterogeneity and error correlation in factorial experiments.
- Robinson, Julia. 71: An introduction to hyperarithmetical functions. 6178: Recursive functions of one variable.
- Robinson, Robert W. 105: Enumeration of colored graphs.
- Robinson, S. F. 2706: Theorems on Brewer sums.
- Rockafellar, R. Tyrrell. 825: ★Monotone processes of convex and concave type. 6110: A general correspondence between dual minimax problems and convex programs. 5782: (with Gale, David and Klee, Victor) Convex functions on convex polytopes.
- Rödding, Walburga. 2602: Eine Art von Gleichwertigkeit zahlen-theoretischer und mengentheoretischer Axiomensysteme.
- Rodin, Burton. 5378: (with Sario, Leo) ★Principal functions.
- Rogers, Hartley, Jr. 61: ★Theory of recursive functions and effective computability.
- Rogosinski, H. P. 6705: Finite positive-moment problems.
- Rogožina, I. S. 1916: A certain class of integral equations, with logarithmic kernel, which are solvable in closed form.
- Rehde, Hanns-Walter. 4401: (with Wienholtz, Ernst) Ein Regularitätssatz zur schwachen 2. Randbedingung mit Anwendungen auf elliptische Differentialoperatoren.
- Rehlin, V. A. 4234: Exact endomorphism of a Lebesgue space.
- Rehrbach, Hans. 2570: Erhard Schmidt. Ein Lebensbild.
- Reitberg, Ja. A. 6592: Theorems on homeomorphisms which can be realized by elliptic operators. 6602: The solvability of general boundary value problems for elliptic equations involving power singularities in their right hand sides.
- Reitberg, Joseph. 5889: (with Hilton, Peter) Note on principal  $S^0$ -bundles.
- Reiter, A. V. 1402: (with Nazarova, L. A.) A sharpening of a theorem of Bass.
- Relfsen, Dale. 2180: Strongly convex metrics in cells.
- Rolph, John E. 4908: Bayesian estimation of mixing distributions.
- Romanov, A. I. 1983: The bias of the unit sphere in the space  $L^2$  ( $\alpha > 1$ ). 3343: A note on the characteristic test for the element of best approximation in certain Orlicz spaces.
- Romanov, Ju. I. 3925: Comparison of the strength of certain  $\Delta\Sigma$ -operations in connection with the generalization of certain multiple separability theorems.
- Romanovskii, I. V. 6107: The use of linear expansion in the solution of integer extremal problems by sorting methods.
- Romanovskii, N. S. 1486: Maximal subrings of the field  $Q$  and maximal subgroups of the group  $SL(n, Q)$ .
- Ronkin, L. I. 5420: The growth of plurisubharmonic functions and the distribution of values of entire functions of several variables.
- Ronveaux, André. 7148: Approximations de l'équation de phase et applications à la théorie quantique des collisions. 7140: Conditions satisfaites par un potentiel engendrant un déphasage inférieur à  $|\pi/2|$  en théorie de Schrödinger.
- van Rooij, A. C. M. 3336: Tight functionals and the strict topology. 3504: The lattice of all topologies is complemented. 2950: (with Liu, Teng-sun) Transformation groups and absolutely continuous measures.
- Roos, Jan-Erik. 279: Locally distributive spectral categories and strongly regular rings. 6346: Sur les catégories spectrales localement distributives. 6353: Sur la décomposition bornée des objets injectifs dans les catégories de Grothendieck.
- van Rootselaar, B. 2616: (with van Hoorn, Willy G.) Fundamental notions in the theory of seminarrings.
- Roquette, P. 2863: (with Hoechsmann, K. and Zassenhaus, H.) A cohomological characterization of finite nilpotent groups.
- Rosa, Aleksandr. See Rosa, Alexander.
- Rosa, Alexander. 1271: On decompositions of a complete graph into 4k-gons.
- Rosati, Francesco. 1859: Su una modificazione dei polinomi di Stieltjes.
- Rosati, Luigi Antonio. 1462: Sulle  $S$ -partizioni nei gruppi non abeliani d'ordine  $pq$ .
- Ropcku, Hortensia. 4452: On a functional equation with matrices. 5502: On the functional equation  $f(x+y)g(x-y) = h^2(x) - h^2(y)$ . 634: (with Stamate, I.) A class of functional equations. 1825: (with Stamate, I.) Matrix generalization of the functional equation of N. I. Lobachevskii with several functions.
- Rose, Alan. 3913: Nouveau calcul de non-contradiction (méthode alternative).
- Roselle, D. P. 2620: Some remarks on the enumeration of symmetric matrices. 1261: (with Dillon, J. F.) Eulerian numbers of higher order.
- Rosen, J. B. 4950: Chebyshev solution of large linear systems.
- Rosen, Joe. 1133: The inhomogeneous pseudo-rotation group as a limiting case of a (homogeneous) pseudo-rotation group of one more dimension.
- Rosen, Michael. 1362: (with Brumer, Armand) On the size of the Brauer group.
- Rosenberg, Harold. 3595: Foliations by planes. 3596: Singularities of  $R^2$  actions.
- Rosenberg, Ivo. 1281: Die transitive Hülle des lexikographischen Produktes.
- Rosenberg, R. M. 5481: Steady-state forced vibrations. 6061: (with Yang, Ta-lun) On the vibrations of a particle in the plane. 6062: (with Yang, Ta-lun) On forced vibrations of a particle in the plane.
- Rosenblatt, J. I. 4870: (with Blum, J. R.) On the moments of recurrence time.
- Rosenblum, Marvin. 3378: Vectorial Toeplitz operators and the Fejér-Riesz theorem.
- Rosenlicht, Maxwell. 217: Another proof of a theorem on rational cross sections.
- Rosenstein, Joseph G. 1241: Initial segments of degrees.
- Rosenthal, Haskell P. 3323: On quasi-complemented subspaces of Banach spaces. 6740: On complemented and quasi-complemented subspaces of quotients of  $C(S)$  for Stonian  $S$ .
- Rosenthal, Peter. 6789: Completely reducible operators. 4635: (with Radjavi, Heydar) Invariant subspaces and weakly closed algebras.
- Rosina, Bellino Antonio. 3213: Sulle configurazioni delle curve algebriche piane  $n$ -circolari.



- Ross, Sheldon M. 2519: Non-discounted denumerable Markovian decision models. 4906: (with Fisher, Lloyd) An example in denumerable decision processes.
- Rosberg, Hans-Joachim. 1047: Über das asymptotische Verhalten der Rand- und Zentralglieder einer Variationsreihe. II. 4804: Eine neue Methode zur Behandlung der Integralgleichung von Lindley und ihrer Verallgemeinerung durch Finch.
- Rossi, Hugo. 763: (with Hoffman, Kenneth) Extensions of positive weak\*-continuous functionals.
- Rotaru, E. 6715: On  $F$ -differentiability of the solutions of Volterra nonlinear integral operators.
- Roth, J. Paul. 7221: Diagnosis of automata failures: A calculus and a method. 7222: (with Bouricius, Willard G. and Schneider, Peter R.) Programmed algorithms to compute tests to detect and distinguish between failures in logic circuits.
- Roth, Roman. 6824: Zum Problem der hyperbolischen Streckenhalbierung im Raum.
- Rothaus, O. S. 941: Correction to: "The construction of homogeneous convex cones". 3050: Some properties of Laplace transforms of measures.
- Rothe, E. H. 741: Some remarks on critical point theory in Hilbert space (continuation).
- Rothkiewicz, A. 1329: (with Halberstam, H.) A gap theorem for pseudoprimes in arithmetic progressions.
- Rotković, G. Ja. 3317: Conditions for the uniqueness of the imbedding of a partially ordered space into a space with unity.
- Rotman, Joseph. 8255: A completion functor on modules and algebras.
- Rottenberg, Reuven R. 842: Correspondence entre surfaces à congruences planaires.
- Rourke, C. P. 4819: (with Orlik, P.) Free involutions on homotopy  $(4k+3)$ -spheres. 2234a: (with Sanderson, B. J.) Block bundles. I. 2234b: (with Sanderson, B. J.) Block bundles. II. Transversality.
- Roussas, George G. 2316: Non-parametric estimation in Markov processes.
- Roussas, Georgios Gr. See Roussas, George G.
- Rousseau, G. 1244: Note on the decidability of a certain class of number theoretic equations. 1253: Remark on rigid order types. 6161: Sheffer functions in intuitionistic logic.
- Rouxel, Bernard. 5792: Application de la représentation de P. Vincenzini à certains couples de congruences ou de complexes de droites.
- Roxin, Emilio. 6552: On asymptotic stability in control systems.
- Roy, A. R. 7046: (with Srivastava, V. K.) On the method of mixed estimation with autocorrelated disturbances.
- Roy, Amit. 5255: (with Sridharan, R.) Higher derivations and central simple algebras.
- Roy, B. 1276: Nombre chromatique et plus longs chemins d'un graphe.
- Roy, J. 998a: (with Chakravarti, I. M. and Laha, R. G.) ★Handbook of methods of applied statistics. Vol. I: Techniques of computation, descriptive methods, and statistical inference. 998b: (with Chakravarti, I. M. and Laha, R. G.) ★Handbook of methods of applied statistics. Vol. II: Planning of surveys and experiments.
- Roy, Prabir. 3544: Nonequality of dimensions for metric spaces.
- Roy, S. N. 1035: (with Srivastava, J. N.) Inference on treatment effects in incomplete block designs.
- Roy Chowdhury, A. N. 2125: On projective recurrent spaces.
- Royster, W. C. 2976: (with Cowling, V. F.) Domains of variability for univalent polynomials.
- Rose, S. N. 3905: An exterior problem of the theory of elasticity in the case of a homogeneous anisotropic medium.
- Rosenberg, G. 1204: Languages of derivations. 1240: Decision problems for quasi-uniform events. 5099: Some remarks on Rabin and Scott's notion of multitape automaton.
- Rosenberg, G. S. 2059: On the question of necessary and sufficient conditions for a minimum in variational problems.
- Rozendorn, E. B. 5793: Investigation of the basic equations of the theory of surfaces in asymptotic coordinates.
- Rozenfel'd, B. A. 6409: (with Karpova, L. M.) Flag groups and contraction of Lie groups. See also Vygodskii, M. Ja., #1215.
- Rosenfel'd, H. M. 2866: Infinite groups with certain properties of indices of subgroups.
- Roikov, V. I. 3161: An equation of neutral type with a small retardation dependent on the unknown function. 6568: An asymptotic power series expansion of the retardation of a periodic solution of an equation of neutral type with small retardation. 6569: Asymptotic behavior of a periodic solution of an equation of neutral type with small lag.
- Roškova, M. I. 2317: Certain conditions for stability of the trajectory in Markov processes.
- R.-Salinas, Baltasar. 2952: On invariant measures in a topological group.
- Rubel, L. A. 3340: Derivation pairs on the holomorphic functions. 1975: (with Shields, A. L.) Hyperbolic mean automorphic functions. 1647: (with Taylor, B. A.) Uniqueness theorems for analytic functions of one and of several complex variables. 3279: (with Berg, I. D. and Rajagopalan, M.) Uniform distribution in locally compact Abelian groups.
- Rubin, H. 3658: (with Vere-Jones, D.) Domains of attraction for the subcritical Galton-Watson branching process.
- Rubinov, A. M. 3307: Certain properties of sublinear functionals. 6815: (with Dem'janov, V. F.) Minimization of functionals in normed spaces. 7176: (with Zijaudinova, D. A.) Minimization of sublinear functionals on convex compacta of metrizable locally convex spaces.
- Ruckle, William. 4552: Lattices of sequence spaces.
- Rudin, Walter. 1981: Proof of a conjecture of Helson.
- Rud'ko, V. P. 2734: Integer representations of the Galois group of a cyclotomic field. 2873: (with Drobotenko, V. S.) Representations of a cyclic group by groups of automorphisms of a certain class of modules.
- Rudolf, L. 6915: (with Mioduszewski, J.) On projective spaces and resolutions in categories of completely regular spaces.
- Rudyk, B. M. 4127: Extensions of modules.
- laRue, James A. See LaRue, James A.
- Ruedin, Jean. 5318: Groupoides pseudo-distributifs à gauche et axiomatique des treillis. 6215: Axiomatique des treillis distributifs.
- Ruegg, H. 5011: (with Rühl, W. and Santhanam, T. S.) The  $SU(6)$  model and its relativistic generalizations.
- Ruelle, David. 5016: Quantum statistical mechanics and canonical commutation relations. 1146: (with Robinson, Derek W.) Mean entropy of states in classical statistical mechanics.
- Ruhe, Axel. 1071: On the quadratic convergence of the Jacobi method for normal matrices.
- Rühl, W. 5011: (with Ruegg, H. and Santhanam, T. S.) The  $SU(6)$  model and its relativistic generalizations.
- Rumsey, H. 6266: (with Berlekamp, E. R. and Solomon, G.) On the solution of algebraic equations over finite fields.
- Rund, Hanno. 5752: ★The Hamilton-Jacobi theory in the calculus of variations: Its role in mathematics and physics.
- Rung, D. C. 3006: A remark on a theorem of Somadasa.
- Runge, Walter. 5457: Eigenwertaussagen über integrale Eigenwertprobleme zweiter Ordnung.
- Rus, Ioan A. 1772: Théorèmes de comparaison pour les systèmes elliptiques aux dérivées partielles du second ordre.
- Rus, T. 3955: A decision theorem in the theory of trees.
- Rusak, V. N. 353: Extremal estimates of derivatives of rational fractions.
- Rusakov, S. A. 6377: Groups with maximal subgroups of prescribed form.
- Rusanov, V. V. 6067: (with Babenko, K. I.; Voskresenskii, G. P. and Ljubimov, A. N.) ★Three-dimensional flow of ideal gases around smooth bodies.
- Ruscior, Ștefania. 5794: Une manière géométrique pour caractériser les variétés engendrées par le mouvement d'un solide parfait sans point fixe dans  $S_4$ .
- Ruseckii, Ju. I. 1863: The approximation of functions continuous on an interval by Abel-Poisson sums.
- Rusin, M. M. 502: Behavior of the integral curves of a system of three differential equations in normal domains of the second and third type. 6534: The behavior of the integral curves of a system of three differential equations in normal domains of the second and third type.
- Russell, C. B. 1154: (with Antelman, G. R. and Savage, I. R.) Surveillance problems: Two-dimensional with continuous surveillance.
- Russell, D. C. 647: On a summability factor theorem for Riesz means.

- Russo, Bernard. 6769: Unimodular contractions in Hilbert space.
- Russo, Giuseppe. 4713: Geometria della "retta" e del piano "enno-nario".
- Rutishauser, H. 7115: (with Andelić, T. P.; Aumann, G.; Bauer, F. L.; Bulirsch, R.; Künzi, H. P.; Samelson, K.; Sauer, R. and Stoer, J.) ★Mathematische Hilfsmittel des Ingenieurs. Teil III.
- Rutten, Edgar A., Jr. 6322: (with Colby, R. R.) Semi-primary QF-3 rings.
- Rutten, John W. 2225: Two theorems on Whitehead products.
- Ruzmetov, E. 716: On a generalisation of a theorem of W. Pogorzelski and on the applicability of the method of successive approximations to multi-dimensional non-linear singular integral equations. 1922: Existence and uniqueness theorem for a class of singular nonlinear integral equations.
- Rybakov, V. I. 5356: The Radon-Nikodým theorem and the representation of vector measures by an integral.
- Rybnikov, K. A. See History of national mathematics in four volumes. Vol. II. 1801-1917, #3888.
- Ryder, L. H. 340: Physical and nonphysical representations of the Galilei group.
- Ryll-Nardzewski, C. 1238: (with Mycielski, Jan) Equationally compact algebras. II. 129: (with Weglorz, B.) Compactness and homomorphisms of algebraic structures.
- Ryser, H. J. 5103: An extension of a theorem of de Bruijn and Erdős on combinatorial designs.
- Ryvkin, V. B. 1805: Letter to the editor.
- Rykov, V. V. 6879: Riemannian geometries of higher order. Imbedding problem.
- Saari, Donald G. 7118: (with Pollard, Harry) Singularities of the  $n$ -body problem. I.
- Saarnio, Uuno. 6187: Über die Positionsdarstellung der Ordnungszahlen der Cantorsche zweiten Zahlenklasse.
- Sabadó, I. See Szabados, J.
- Šabat, B. V. 1594: (with Rošetnjak, Ju. G.) Quasiconformal transformations in space.
- Sabidussi, Gert. 2629: Existence and structure of self-adjoint graphs.
- Sabirov, I. 3324: A remark on a theorem of Fréchet.
- Sabirov, T. 6553: The stability of small periodic solutions at multi-dimensional degeneracies. 5769: (with Imomnazarov, B. and Stecenko, V. Ja.) The spectral properties of certain classes of linear positive operators.
- Sabitov, I. H. 6846: Minimal surfaces with certain boundary conditions.
- Sackman, J. L. 7129: (with Nickell, R. E.) Variational principles for linear coupled thermoelasticity.
- Sacks, G. E. 1246: (with Gandy, R. O.) A minimal hyperdegree.
- Sacks, Louis. 145: (with Waddill, Marcellus E.) Another generalized Fibonacci sequence.
- Sacksteder, R. 5358: (with Konijn, H. S.) Unbiased distinguishing of translation families and integrability with respect to a convolution of measures.
- Sadaca, Jacques. 3781: Équations aux différences finies pour l'équation biharmonique dans le plan à l'approximation du troisième ordre.
- Sadikova, S. M. 2301: The multidimensional central limit theorem.
- Sadovničii, V. A. 3089: (with Lidskii, V. B.) Trace formulas in the case of the Orr-Sommerfeld equation.
- Sadovnikov, B. I. 6097: ★Connection of two-time temperature advanced and retarded Green functions method with kinetic equations in statistical mechanics.
- Sadovskii, A. P. 3094: A solution of the center and focus problem in a special case. 4353: Stability in critical cases.
- Sadovskii, B. N. 503: Some theorems on differential inequalities. 553: Local existence theorems for ordinary differential equations in Banach spaces. 6514: Several theorems on uniqueness and successive approximations for ordinary differential equations.
- Sadovskii, L. E. 2870: Certain lattice-theoretic problems in group theory.
- Sadyhov, G. S. 5392: The growth in a strip of functions defined by series of Dirichlet polynomials.
- Saeiki, Sadahiro. 697: On norms of idempotent measures. 4510: On norms of idempotent measures. II. 6694: An elementary proof of a theorem of Henry Helson.
- Šafarevič, I. R. 6285: (with Averbuh, B. G.; Vainberg, Ju. R.; Žil'benko, A. B.; Manin, Ju. I.; Moisezon, B. G.; Tjurina, G. N. and Tjurin, A. N.) ★Algebraische Flächen.
- Saffari, Bahman. 6252: Sur le nombre des diviseurs " $r$ -libres" d'un entier, et sur les points à coordonnées entières dans certaines régions du plan.
- Sagle, A. 2910: (with Winter, D. J.) On homogeneous spaces and reductive subalgebras of simple Lie algebras.
- Sah, Chih-han. 5287: Automorphisms of finite groups.
- Šahidardova, N. 4854: Uniform local and global theorems for densities. 4855: (with Azharov, T. A.) Uniform estimates in global limit theorems.
- Šahbagan, R. L. 4520: Convolution integral equations with variable symbol.
- Sahney, B. N. 686: (with Kathal, P. D.) Summability ( $L$ ) of the first differentiated Fourier series.
- Sahnovič, L. A. 3389: Dissipative Volterra operators.
- Šaidukov, G. M. 4975: An application of Academician S. A. Čaplygin's method to the approximate solution of partial differential equations of biharmonic type.
- Šaidukov, K. M. 3325: Lebesgue constants of bases in the space of continuous functions. 4587: Bases, in the space of continuous functions, constructed from arcs of parabolas.
- Saigal, R. 1163: (with Sakarovitch, M.) An extension of generalized upper bounding techniques for structured linear programs.
- Šain, Ju. F. 2489: Investigation of the motions of a spherical pendulum in the presence of a switching rotating force.
- Sainz Eguizabal, Alvaro. 3425: Homologies of second order or  $\beta$ -homologies.
- Saitō, Kazuyuki. 2006: On the preduals of  $W^*$ -algebras. 2007: Non-commutative extension of Lusin's theorem.
- Saitō, Teishirō. 2010: Generators of certain von Neumann algebras. 4654: Numerical ranges of tensor products of operators.
- Saitō, Tōru. 2883: Ordered regular proper semigroups. 6221: The archimedean property in an ordered semigroup.
- Saito, Toshiya. 1736: On the flow outside an isolated minimal set.
- Šajahmetov, T. K. 1245: Undecidability of certain theories with a supplemental predicate.
- Šajda, J. 1197: The solution of integral equations by means of orthogonal series.
- Sakai, Kōkichi. 2905: On the representations of the motion group of  $n$ -dimensional Euclidean space. I.
- Sakai, Shōchirō. 2011: On the hyperfinite  $II_1$ -factor. 4636: Derivations of uniformly hyperfinite  $C^*$ -algebras. 5701: On the tensor product of  $W^*$ -algebras.
- Sakajuk, K. D. 3294: The generalized Abel integral equation with inner coefficients.
- Sakamoto, Yukio. 4782: (with Nagashima, Hidetake and Yajima, Kin'ichi) On compactness in ranked spaces. 4774: (with Yajima, Kin'ichi and Nagashima, Hidetake) On the sets of points in the ranked space.
- Sakarovitch, M. 1163: (with Saigal, R.) An extension of generalized upper bounding techniques for structured linear programs.
- Sakawa, Yoshiyuki. 5046: Solution of an optimization problem in linear distributed-parameter systems.
- Saks, R. S. 3019: A nonelliptic Dirichlet problem.
- Saksena, K. M. 702: An inversion theory for the Laplace integral.
- Sakuma, Motoyoshi. 6280: (with Okuyama, Hiroshi) On the Betti series of local rings.
- Salaev, V. V. 3286: Some properties of a singular operator.
- Šalaevskii, A. V. See Wilks, Samuel S., #2345.
- Šalát, Tibor. 1834: Remarks on the ergodic theory of the continued fractions. 5100: Zu einigen Fragen der Gleichverteilung (mod 1). 5179: Zur metrischen Theorie der Lüröthischen Entwicklungen der reellen Zahlen.
- Saleh, A. K. Md. Ehsanes. 1010: Determination of the exact optimum order statistics for estimating the parameters of the exponential distribution from censored samples.
- Salehi, Habib. 3644: Applications of Hellinger's integrals in detection theory.
- Salehov, D. V. 4597: Certain properties of functions which belong to an Orlicz space.

- Salli, V. N.** 1497: Transformative semigroups  $(\Theta, \circ, \xi, \chi_1, \chi_2)$ . 3972: Nonassociative systems connected with  $\mathcal{E}$ -transformations.
- Sally, P. J., Jr.** 5329: Unitary and uniformly bounded representations of the two by two unimodular group over local fields.
- Salpargarov, H. M.** 5645: The stability of integro-differential equations of Barbašin type. 5644: (with Bykov, Ja. V.) On the theory of integro-differential equations.
- Salzer, Herbert E.** 177: (with Levine, Norman) Proof that every integer  $\leq 452,479,659$  is a sum of five numbers of the form  $Q_x = (x^2 + 5x)/6$ ,  $x \geq 0$ .
- Samadov, K.** 2041: (with Stecenko, V. Ja.) On the estimation of solutions of linear operator equations.
- Samandarov, A. G.** 1341: Equidistribution of prime ideals in classes  $H \bmod f$ .
- Samanskii, V. E.** 1092: The method of linearization for solving non-linear boundary value problems.
- Samaraskii, A. A.** 3782: The choice of iteration parameters in the method of variable directions for a Dirichlet difference problem of a higher order of accuracy. 6045: The stability of operator-difference schemes.
- Sámboan, Gabriel.** See Simboan, Gabriel.
- Samelson, Hans.** 5519: On manifolds with many closed geodesics.
- Samelson, K.** 7115: (with Andelić, T. P.; Aumann, G.; Bauer, F. L.; Bulirsch, R.; Künzi, H. P.; Rutishauser, H.; Sauer, R. and Stoer, J.) ★Mathematische Hilfsmittel des Ingenieurs. Teil III.
- Samulina, L. S.** 2422: A generalized logarithmic norm. 4354: An application of a piecewise smooth Ljapunov function.
- Samko, S. G.** 3295: A generalized Abel equation and fractional integration operators. 3296: Noether's theory for the generalized Abel integral equation. 5631: A general singular equation on an open contour, and a generalized Abel equation.
- de Sam Lazaro, José.** 2313: Sur la représentation et l'approximation des processus strictement stationnaires par les intégrales de Wiener.
- Samoilenko, A. M.** 504: The reducibility of systems of linear differential equations with quasiperiodic coefficients.
- Samokil, B. A.** 2490: The application of Fourier's method to the solutions of difference equations.
- Samudinov, I.** 4537: (with Ved', Ju. A.) The unique solvability of two types of limit boundary value problems for integro-differential equations.
- Samuel, Ester.** 1028: Sequential maximum likelihood estimation of the size of a population.
- Samuel, Pierre.** See Anneaux de Gorenstein, et torsion en algèbre commutative, #1435.
- Samuels, P.** 3497:  $V$ -topologies and their application to abstract covering theorems.
- Samuelsson, Åke.** 1618: A set of uniqueness for functions, analytic and bounded in the unit disc.
- Sánchez, David A.** 3076: ★Ordinary differential equations and stability theory: An introduction. 4685: On extremals of composite variational problems.
- Sanderson, B. J.** 2234a: (with Rourke, C. P.) Block bundles. I. 2234b: (with Rourke, C. P.) Block bundles. II. Transversality.
- Sanderson, D. E.** 890: Relations among some basic properties of non-continuous functions.
- Sandik, M. D.** 2891: Homomorphisms of  $n$ -loops.
- Sandler, Reuben.** 3435: (with Albert, A. Adrian) ★An introduction to finite projective planes.
- Sandved, Else.** 7034: Ancillary statistics and prediction of the loss in estimation problems.
- Sanielevici, Simion.** 23: ★Mathematical works.
- Sanikidze, D. G.** 6060: On the question of an error estimate for quadrature formulas for certain singular integrals.
- Sanin, N. A.** 5052: ★Constructive real numbers and constructive function spaces.
- Sanini, Aristide.** 843: Applicabilità proiettiva di calotte superficiali.
- San Juan, Ricardo.** 443: Une décomposition en somme de fonctions semi-analytiques. 1567: Clarifications and simplifications to the memoir: "The problem of Watson and semi-analytic classes".
- Sankaran, N.** 6281: A theorem on Henselian rings.
- Sankaranarayanan, A.** 7147: Extension theorem and representations.
- Sannikov, S. S.** 343: Representations of a continuous group by unbounded operators. 1523: A construction of multivalued representations of the rotation group by unbounded operators.
- Sansone, F. J.** 1243: The summation of certain series of infinite regressive isols.
- Sansone, Giovanni.** 1694: L'equazione  $y dy/dx + y + |x|^v \operatorname{sgn} x = 0$  ( $1 \geq v \geq 0$ ).
- Santagati, Giuseppe.** 804: (with Pulvirenti, Giuseppe) Controlli lineari negli spazi di Orlicz. 4378: (with Pulvirenti, Giuseppe) Sulla teoria dei controllori lineari negli spazi di Orlicz di funzioni a valori vettoriali.
- Santaló, L. A.** 845: ★Introduction to the differential geometry of differentiable manifolds. 870: Horocycles and convex sets in hyperbolic plane. 2158: Average values for polygons formed by random lines in the hyperbolic plane. 5795: On the converse of a theorem of Jacobi relative to space curves.
- Santhanam, T. S.** 5011: (with Ruegg, H. and Rühl, W.) The  $SU(6)$  model and its relativistic generalizations.
- dos Santos, Nathan Moreira.** See Moreira dos Santos, Nathan.
- Sapagovas, I.** See Sapagovas, J.
- Sapagovas, J.** 5951: System reliability in the case of noninstantaneous renewal time.
- Sapagovas, M. P.** 6046: (with Agal'cev, A. V.) A solution of the minimal surface equation by the method of finite differences.
- de Sapio, R.** See De Sapio, R.
- Sapiro, R. L.** 6512: Special functions related to representations of the group  $SU(n)$ , of class I with respect to  $SU(n-1)$  ( $n \geq 3$ ).
- Sarachik, Philip E.** 7186: Functional analysis in automatic control.
- Šaraja, V. V.** 1489: (with Berman, S. D.) The irreducible representations of an infinite direct product of finite groups.
- Sarason, Donald.** 3326: On the order of a simply connected domain.
- Sarason, Leonard.** 4397: Differentiable solutions of symmetrizable and singular symmetric first order systems. 1804: (with Phillips, R. S.) Corrigendum on: "Elliptic-parabolic equations of the second order".
- Sarbasov, G.** 2719: Remainder term of an asymptotic formula of the distribution of elementary abelian fields of degree  $l^2$  and type  $(l, l)$ . 4032: Some absolutely abelian fields.
- Sario, Leo.** 3599: (with Nakai, Mitsuru) Border reduction in existence problems of harmonic forms. 5378: (with Rodin, Burton) ★Principal functions. 3600: (with Larsen, Kenneth and Nakai, Mitsuru) Formes harmoniques principales sur un espace de Riemann.
- Šaripov, S. R.** 4326: (with Baframov, S.) The simultaneous existence of exceptional directions.
- Sarkadi, K.** 3715: Some remarks on the estimation of fraction defective and reliability in the case of normal distribution. See also Studies in mathematical statistics: Theory and applications, #2346.
- Šarkovskii, A. N.** See Šarkovskii, O. M.
- Šarkovskii, O. M.** 908: Attracting sets containing no cycles.
- Šárközi, A.** 183: (with Erdős, P. and Szemerédi, E.) On the solvability of certain equations in sequences of positive upper logarithmic density. 2716: (with Erdős, P. and Szemerédi, Endre) The solvability of certain equations in dense sequences of integers. 2717: (with Erdős, P. and Szemerédi, E.) On the divisibility properties of sequences of integers. II.
- Sarlos, G.** 4359: (with Burnand, G.) Determination of the domain of stability.
- Sarmanov, I. O.** 4850: A generalized symmetric gamma-correlation.
- Sarmanov, O. V.** 3653: (with Zaharov, V. K.) The law of distribution of the number of runs in a homogeneous Markov chain.
- Šaršanov, A. A.** 6519: (with Myškis, A. D.) The construction of the set of initial points of the integral lines contained in a half-plane for a linear Hamiltonian system of two equations with periodic coefficients.
- Sasagawa, Hiroshi.** 2151: On totally umbilical submanifolds of a Kählerian manifold. 6885: Closed complex hypersurfaces in a  $K$ -space. 6886: On complex hypersurface in a  $K$ -space of constant curvature.
- Sasakura, Nobuo.** 4075: On some results of the Picard numbers of certain algebraic surfaces.
- Šalina, M. K.** 546: Differential equations with deviating argument and a small parameter at the highest derivative.
- Sasa, Hachirō.** 1004: The probability density of a certain statistic in one sample from the double exponential population.



- Satake, Ichiro. 2759: On a certain invariant of the groups of type  $E_6$  and  $E_7$ .
- Satalov, Ju. S. 6716: On the problem of the existence of solutions of systems of singular integral equations of Volterra type.
- Satalova, M. A. 1291: A class of lattice-ordered rings.
- Sathi, H. L. 4997: (with Singh, M. P.) An exact solution in rotating flow.
- Sato, Ken-iti. 6798: On the generators of non-negative contraction semi-groups in Banach lattices.
- Satō, Tokul. 5594: Sur la convergence des séries de Fourier. 5334: (with Takemura, Yasuji) Sur les suites filtrantes de nombres.
- Sato, Tsunee. 424: Remarks on Hayman's theorems. 1610: On the mean value of entire functions and their derivatives.
- Sattlinger, David H. 567: Stability of nonlinear hyperbolic equations. 3200: On global solution of nonlinear hyperbolic equations. 6585: Stability of nonlinear parabolic systems.
- Satyanarayana, M. 240: Characterization of local rings. 1403: Semisimple rings.
- Sauer, Norbert. 6206: Extremaleigenschaften regulärer Graphen gegebener Tailenweite. I, II.
- Sauer, Robert. 7116: ★Ingenieur-Mathematik. Zweiter Band: Differentialgleichungen und Funktionentheorie. 7115: (with Anđelić, T. P.; Aumann, G.; Bauer, F. L.; Bulirsch, R.; Künzi, H. P.; Rutishauser, H.; Samelson, K. and Stoer, J.) ★Mathematische Hilfsmittel des Ingenieurs. Teil III.
- Saunders, Sam C. 3714: (with Myhre, J. M.) Comparison of two methods of obtaining approximate confidence intervals for system reliability.
- Savage, I. R. 1154: (with Antelman, G. R. and Russell, C. B.) Surveillance problems: Two-dimensional with continuous surveillance.
- Sawaki, Sumio. 2152: (with Takagi, Hitoshi) On certain conditions for a  $K$ -space to be isometric to a sphere.
- Sawoh, Z. 1995: (with Warzecha, A.) On the general form of subalgebras of codimension 1 of  $B$ -algebras with a unit.
- Saworotnow, Parfeny P. 3333: A generalized Hilbert space.
- Sawyer, D. B. 1320: Lattice points in rotated star sets.
- Saxena, R. B. 4465: (with Prasad, J.) Some interpolatory properties of Laguerre polynomials.
- Saxena, S. C. 6828: Hypplanes of order  $(n, m)$ .
- Sayer, F. P. 6066: A note on a moment theory of bending.
- Sazonov, V. V. 2802: The rate of convergence in the multidimensional central limit theorem.
- Scharborough, C. T. 3522: (with Stephenson, R. M.) Minimal topologies.
- Šteglav, A. I. 3919: The algebra of partially recursive functions.
- Štepin, G. G. 4152: On the occurrence problem in finitely defined groups.
- Šterbackii, I. K. 6323: Upper and lower isolated  $M$ -components.
- Šterbakov, B. A. 2207: Minimal motions and the structure of minimal sets. 4361: A certain class of Poisson stable solutions of differential equations.
- Schaafama, W. 1015: A comparison of the most stringent and the most stringent somewhere most powerful test for certain problems with restricted alternative.
- Schaal, Hermann. 2100: Eine Verallgemeinerung der Edlingerschen Flächen.
- Schacher, Murray M. 2809: Subfields of division rings. I.
- Schaefer, Paul. 4455: Limit points of bounded sequences.
- Schäfer, F. W. 4315: (with Schneider, A.)  $S$ -hermitesche Rand-Eigenwertprobleme. III.
- Scharlau, Winfried. 1442: Quadratische Formen und Galois-Cohomologie.
- Scharle, Thomas. 1229: (with Lambert, Karel) A translation theorem for two systems of free logic.
- Schay, Geza. 5901: An algebra of conditional events.
- Schechter, E. 3759: On a connection between the Chaplygin and Newton methods.
- Schechter, Martin. 5718: On the invariance of the essential spectrum of an arbitrary operator. II. 6777: Riesz operators and Fredholm perturbations. 3364: (with Coburn, L. A.) Joint spectra and interpolation of operators.
- Schechtman, I. See Šchitman, I.
- Scheerer, Hans. 4833: Homotopieäquivalente kompakte Liesche Gruppen.
- Scheja, Günter. 4066: Einige Beispiele faktorieller lokaler Ringe. 4067: (with Wiebe, Hartmut) Über die Divisorenklassengruppen lokaler Ringe auf zweidimensionalen normalen Hyperflächen.
- Schenkman, Eugene. 1474: A replacement theorem for nilpotent groups with maximum condition. 2842: Some two-generator groups with two relations.
- Scherer, K. 4489: (with Butzer, P. L. and Nessel, R. J.) Trigonometric convolution operators with kernels having alternating signs and their degree of convergence.
- Scherk, Peter. 3492: On differentiable arcs and curves. VI. Singular osculating spaces of curves of order  $n+1$  in projective  $n$ -space.
- Schermann, K. 5282: (with Dénes, J.) Similar permutations in the alternating group.
- Scheuer, Ernest M. 4930: (with Barlow, Richard E.; Madansky, Albert and Proschan, Frank) Statistical estimation procedures for the "burn-in" process.
- Schiffer, Menahem. 4249: On the coefficients problem for univalent functions. 1584: (with Garabedian, P. R.) The local maximum theorem for the coefficients of univalent functions.
- Schilder, Michael. 2320: Expected values of functionals with respect to the Ito distribution.
- Schinz, A. 2666: On different branches of the theory of numbers. 147: (with Grzegowski, A.) Sur les itérations d'une fonction arithmétique.
- Šchiop, Alex. I. 3330: (with Cruceanu, Șt.) The relation between pseudo-resolvent and a problem of optimum.
- Schirmer, Helga. 5856: Coincidence producing maps onto trees.
- Schlaepfer, F. E. 1851: Die Phasenfunktion einer Tchebyscheff'schen Polynomapproximation.
- Schlaifer, Robert. 2344: (with Raiffa, Howard) ★Applied statistical decision theory.
- Schleiermacher, Adolf. 820: (with Strambach, Karl) Über die Gruppe der Projektivitäten in nichtgeschlossenen Ebenen.
- Schmaedeke, Wayne W. 6422: (with Sell, George R.) The Gronwall inequality for modified Stieltjes integrals.
- Schmetterer, L. 3408: Über ein Iterationsverfahren. 7018: ★Einführung in die mathematische Statistik.
- Schmid, Wilfried. 1520: Homogeneous complex manifolds and representations of semisimple Lie groups.
- Schmidt, R. 4578: (with Hildebrandt, S.) Zur Konvergenz von Operatorprodukten in Hilbertraum.
- Schmidt, Erhard. See Rohrbach, Hans, #2570.
- Schmidt, J. 125: (with Burmeister, P.) On the completion of partial algebras.
- Schmidt, Jochen W. 4936: Ein Konvergenzsatz für Iterationsverfahren.
- Schmidt, Peter Georg. 190: Zur Anzahl Abelscher Gruppen gegebener Ordnung. II.
- Schmidt, Wolfgang M. 161: Asymptotic formulae for point lattices of bounded determinant and subspaces of bounded height. 4029: Irregularities of distribution. 4847: Some results in probabilistic geometry. 1321: (with Davenport, H.) A theorem on linear forms.
- Schmitt, Karl-Adolf. 6834: Kennzeichnung des Steinerpunktes konvexer Körper.
- Schmitt, Klaus. 6526: Boundary value problems for nonlinear second order differential equations. 4364: (with Grimm, L. J.) Boundary value problems for delay-differential equations.
- Schmitz, N. 3684: Zur Existenz gleichmäßig bester unverfälschter Tests bei Exponentialfamilien.
- Schnare, Paul S. 873: Multiple complementation in the lattice of topologies.
- Schneider, A. 4315: (with Schäfer, F. W.)  $S$ -hermitesche Rand-Eigenwertprobleme. III.
- Schneider, Manfred. 7001: Einige Bemerkungen zur näherungsweise Lösung gewöhnlicher Differentialgleichungen.
- Schneider, Peter R. 7222: (with Roth, J. Paul and Bouricius, Willard G.) Programmed algorithms to compute tests to detect and distinguish between failures in logic circuits.
- Schneider, W. J. 458: A problem in 2-dimensional heat flow. 3005: An elementary proof of a theorem of MacLane.
- Schneiderman, Marvin A. 2378: (with Myers, Max H. and Armitage, Peter) Boundaries for closed (wedge) sequential  $t$  test plans.

- Schnitzer, F. 2156: (with Brown, Leon and Shields, A. L.) A note on a problem of D. Pompeiu.
- Schober, Glenn. 448: Neumann's lemma. 4252: Continuity of curve functionals and a technique involving quasiconformal mapping.
- Schock, Eberhard. 1959: ★Über einige lineare Räume von nichtlinearen Abbildungen. 3590: Beste Approximation von Elementen eines nuklearen Raumes.
- Schoeller, Colette. 280:  $\Gamma$ -H-algebres sur un corps. 281: Homologie des anneaux locaux noethériens. 282: Étude de quelques invariants des anneaux locaux noethériens.
- Schoenfeld, Lowell. 400: (with Harris, Bernard) Asymptotic expansions for the coefficients of analytic functions. 1492: (with Harris, Bernard) Erratum to: "The number of idempotent elements in symmetric semigroups".
- Scholz, D. R. 3734: (with Johnson, L. W.) On Steffensen's method.
- Schönbeck, Sien Olof. 1960: Extension of nonlinear contractions.
- Schönemann, Peter H. 1064: On two-sided orthogonal procrustes problems.
- Schrader, Keith W. 6527: Solutions of second order ordinary differential equations.
- Schrader, R. 2900: (with Joos, H.) On the primitive characters of the Poincaré group.
- Schreiber, Bert M. 6394: (with Robertson, Lewis) The additive structure of integer groups and  $p$ -adic number fields.
- Schröder, E. 6832: Projektive Ebenen mit pappuschen Geradenpaaren.
- Schubert, Horst. 2160: ★Topology. 3554: Knoten.
- Schultz, Martin H. 3183: A priori bounds for solutions of quasi-linear elliptic differential equations. 3197: Quasi-linear elliptic boundary value problems. 605: (with Varga, R. S.)  $L$ -splines. 2404: (with Birkhoff, G. and Varga, R. S.) Piecewise Hermite interpolation in one and two variables with applications to partial differential equations. 4965: (with Ciarlet, P. G. and Varga, R. S.) Numerical methods of high-order accuracy for nonlinear boundary value problems. II. Nonlinear boundary conditions.
- Schur, Issai. 5248: ★Vorlesungen über Invariantentheorie.
- Schurer, F. 5580: (with Cheney, E. W.) A note on the operators arising in spline approximation.
- Schlütte, Kurt. 2587: ★Vollständige Systeme modaler und intuitionistischer Logik.
- Schützenberger, Marcel Paul. 2788: Sur certains semi-groupes de matrices non negatives.
- Schwabbhäuser, Wolfram. 3915: Zur Axiomatisierbarkeit von Theorien in der schwachen Logik der zweiten Stufe.
- Schwartz, A. J. 2208: Flows on the solid torus asymptotic to the boundary.
- Schwartz, Laurent. 2275: Extension du théorème de Sazonov-Minlos à des cas non hilbertiens. 2276: Réciproque du théorème de Sazonov-Minlos dans des cas non hilbertiens. 2558a: ★Analyse mathématique. I. 2558b: ★Analyse mathématique. II.
- Schwartz, Lawrence. 1194: (with Stear, Edwin B.) A valid mathematical model for approximate nonlinear minimal-variance filtering.
- Schwarz, Binyamin. 4241: (with London, David) On the radius of difocality of a class of polynomials.
- Schwarz, Ralph J. 2401: Table errata.
- Schwarz, Wolfgang. 174: Eine Bemerkung über die Anzahl der Zahlen  $pr^3$  unterhalb  $x$ .
- Schweiger, Fritz. 148: Induzierte Masse und Jacobischer Algorithmus. 2681: Mischungseigenschaften und Entropie beim Jacobischen Algorithmus.
- Selmei, Benedetto. 5289: Finite groups admitting a fixed-point-free automorphism.
- Seognamiglio, Gennaro. 333: Sulle sostituzioni monomie. 1351: Algebre di matrici atte a rappresentare campi di Galois.
- Scott, Dana. 3912: Extending the topological interpretation to intuitionistic analysis.
- Scott, W. R. 1463: (with Gross, Fletcher) Solvable products of groups.
- Scourne, Christian. 2423a: Résolution d'un système d'équations linéaires par la méthode "croix-alphanumérique". 2423b: Quelques conséquences de la méthode croix-alphanumérique.
- Scriba, Carl-Heinz. 2101: Über koordinatenfreie Differentialgeometrie. 2269: Der Eulersche Transformator eines Feldes stetiger linearer Operatoren.
- Šteukin, K. K. 6363: Remarks on primary groups.
- Sebastiani, Marcos. 4074: Quelques critères topologiques de simplicité pour un certain type de variétés algébriques.
- Seber, G. A. F. 4921: ★The linear hypothesis: A general theory.
- Sebeşan, Ioan. 5337: (with Bădescu, Radu and Nanuş, Cornelia) Intégrales riemanniennes généralisées dans les espaces  $R^m$ .
- Sec, Antoinette. 6958: Sur certains feuilletages de dimension 1 de  $R^3$ .
- Seckler, Bernard D. See Šilov, G. E., #5694.
- Šeda, V. 2436: A remark to quasilinearization. 5454: Über die Transformation der linearen Differentialgleichungen  $n$ -ter Ordnung. II.
- Šedivá-Trnková, Věra. 6344: (with Hedrlin, Z. and Pultr, A.) Concerning a categorical approach to topological and algebraic theories.
- Sedleckii, A. M. 4467: The representation of functions periodic in the mean by sequences of Dirichlet polynomials.
- Sedol, Ja. Ja. See Sedols, J.
- Sedols, J. 1188: Algebraic methods of calculation of not completely accessible schemes.
- Sedziwy, S. 4313: Extremal transient problems in linear systems.
- Seeber, R. R. 1309: Mersenne-form and Fermat-form number congruences.
- Seeley, R. T. 2040: Refinement of the functional calculus of Calderón and Zygmund.
- Seever, G. L. 1976: Measures on  $F$ -spaces.
- Segal, Jack. 2195: Quasi dimension type. II. Types in 1-dimensional spaces.
- Segal, Irving. 6079: An extension of a theorem of L. O'Riada.
- Segal, S. L. 5143: Footnote to a formula of Gioia and Subbarao.
- Segercrantz, Jerry. 4201: Disconnected subgroups of the Lorentz and rotation groups.
- Segre, Beniamino. 4700a: ★Istituzioni di geometria superiore. Vol. I: Strutture algebriche. 4700b: ★Istituzioni di geometria superiore. Vol. II: Spazi proiettivi. 4700c: ★Istituzioni di geometria superiore. Vol. III: Complessi, reti, disegni. 6844: Sommets et directions de Cavalieri-Lagrange des courbes gauches fermées.
- Segre, Giorgio. 1174: (with Rescigno, Aldo) On some topological properties of the systems of compartments. 1175: (with Rescigno, Aldo) On some metric properties of the systems of compartments.
- Seguchi, Tsunetami. 4865: (with Naritomi, Takashi) On certain types of recurrent events.
- Sehgal, Surinder K. 2849: (with McWorter, William A., Jr.) Normal complements of Carter subgroups.
- Šehtman, I. See Babenko, K. I.; Voskresenskii, G. P.; Ljubimov, A. N. and Rusanov, V. V., #6067.
- Seldman, T. I. 4384: (with MacCamy, R. C. and Mizel, V. J.) Approximate boundary controllability for the heat equation.
- Selert, Hans-Jürgen. 1149: Global connectivity by timelike geodesics.
- Šelmin, O. B. 15: On Daniel Bernoulli's article of 1777 and on Euler's commentaries.
- Šelmin, V. P. 3042: An integral representation for circular regions of  $C^n$  and some applications of it.
- Seksenbaev, K. 2861: The finitary approximability of the finite extension of a nilpotent group with respect to conjugacy.
- Selberg, Henrik L. 384: Über einen Satz von Fabry.
- Selfridge, J. L. 131: (with Brillhart, John) Some factorizations of  $2^n \pm 1$  and related results. 5144: (with Erdős, P.) Some problems on the prime factors of consecutive integers.
- Seligman, George B. 2760: On some commutative unipotent groups.
- Sell, George R. 6422: (with Schmaedeke, Wayne W.) The Gronwall inequality for modified Stieltjes integrals.
- Selmer, Ernst S. 7114: Binary registers and linear recurrence.
- Selucký, K. 3996: Divisibility of infinite coprime sequences.
- Semadeni, Z. 2101: (with Zidenberg, H.) On preordered topological spaces and increasing semicontinuous functions.
- Semenul, A. A. See Gohberg, I. C. and Fel'dman, I. A., #1915.
- Semenov, I. P. 1942: An integro-differential equation with lagging argument. 1943: Approximate solution by the method of straight lines of an integro-differential equation with lagging argument. 4976: Convergence of the method of straight lines in the solution of boundary value problems for the equation  $\Delta^2 u(x, y) = f(x, y)$ .
- Semerédi, E. See Szemerédi, E.
- Šemetkov, L. A. 1464: Factorization of finite groups. 2850: Finite

- solvable groups. 4158: Isomorphic embedding of subgroups in finite groups.
- Semin, F. See Godeaux, L., #4692.
- Sen, Pranab Kumar. 1043: A class of permutation tests for stochastic independence. I. 2359: A note on asymptotically distribution-free confidence bounds for  $P(X < Y)$ , based on two independent samples. 2361: On a class of aligned rank order tests in two-way layouts. 3677: A note on the asymptotic efficiency of Friedman's  $\chi^2$ -test. 4928: On some nonparametric tests for symmetry in two-way tables. 5990: Nonparametric tests for multivariate interchangeability. I. Problems of location and scale in bivariate distributions. 1044: (with Puri, Madan Lal) On Chernoff-Savage tests for ordered alternatives in randomized blocks. 2358: (with Puri, Madan Lal) On a class of multivariate multisample rank order tests. II. Tests for homogeneity of dispersion matrices. 2360: (with Puri, Madan Lal) Correction to: "On the theory of rank order tests for location in the multivariate one sample problem". 3712: (with Puri, Madan Lal) On a class of rank order estimators of contrasts in Manova. 7041: (with Puri, Madan Lal) On a class of multivariate multisample rank-order tests.
- Senator, K. 6604: Completely elliptic boundary conditions of Dirichlet type.
- Sendov, Blagovest. 655: The approximations of plane point sets by polynomial curves. 666: The convergences of a sequence of positive linear operators. 1850: Approximation with respect to the Hausdorff distance. 3254: On the theorems of P. P. Korovkin for convergence of sequences of linear positive operators.
- Seneta, E. 3659: The Galton-Watson process with mean one. 4888: The stationary distribution of a branching process allowing immigration: A remark on the critical case. 7004: On imbedding discrete chains in continuous time. 7095: On the maxima of absorbing Markov chains.
- Senik, P. M. 3057: Ateb-functions.
- Senik, S. G. 1084: Single-frequency asymptotic solutions for quasi-linear systems.
- Sentenac, J. 3838: (with Broise, P. and Huard, P.) ★Décomposition des programmes mathématiques.
- Serbin, A. I. 3016: A generalized Riemann boundary value problem on a finite Riemann surface.
- Serebrakova, N. N. See Serebrjakova, N. N.
- Serebrjakova, N. N. 6546: On periodic solutions of dynamic, second order, nearly piecewise analytic systems.
- Sereda, V. Ju. 1911: A generalized method of solution of linear integral equations of the second kind. 3792: (with Bondarenko, P. S.) An estimate of the error of a class of real algorithms for the numerical solution of linear integral equations of the second kind. 708: (with Kalaida, O. F.) A certain method for solving second order linear integral equations. 3239: (with Kalaida, O. F.) A certain method for solving linear integral equations of the second kind.
- Seremeta, M. M. 2997: The connection between the growth of functions of order zero which are entire or analytic in a disc and their power series coefficients.
- Serfling, R. J. 2389: The Wilcoxon two-sample statistic on strongly mixing processes. 3637: Contributions to central limit theory for dependent variables.
- Sergescu, Petre. See Itard, Jean, #5079; Taton, René, #5080 and Bibliographie des publications de Pierre Sergescu, #5069.
- Serov, M. I. 2089: Two unsolved problems from Ulam's collection. 4316: Multiple eigen-values of cyclic boundary value problems.
- Serre, Jean-Pierre. 2761: Commutativité des groupes formels de dimension 1.
- Serrin, James. 1787: The Dirichlet problem for quasilinear equations with many independent variables. 3218: On the mathematical basis for Prandtl's boundary layer theory: An example. 2055: (with Jenkins, Howard) Variational problems of minimal surface type. III. The Dirichlet problem with infinite data.
- Serstnev, A. N. 2278: The triangle inequalities for random metric spaces. 879: (with Multari, D. H.) A certain problem on triangle inequalities for random normed spaces.
- Servi, Mario. 5838: Limiti inversi di spazi topologici generalizzati.
- Sesekin, N. F. 3897: (with Kuroš, A. G.; Plotkin, B. I. and Ševrin, L. N.) Petr Grigor'evič Kontorovič: Obituary.
- Šelko, M. A. 3021: A general boundary value problem of linear conjugacy for a class of functions defined on a closed Riemann surface.
- Sestini, Giorgio. 3206: Problemi analoghi a quello di Stefan e loro attualità.
- Sethares, G. C. 4253: The extremal property of certain Teichmüller mappings.
- Setó, Yasuo. 2572: Axiom systems of Aristotle traditional logic. III.
- Sevast'janov, B. A. 953: The mathematical expectations of functions of sums of random numbers of terms. 4889: Limit theorems for branching processes with conversions depending on the age of the particles.
- Ševčenko, V. I. 5535: The Poincaré problem for an elliptic system of two second order equations with several independent variables.
- Ševcov, G. S. 5299: A class of solvable groups.
- Ševcov, V. I. 5389: The representation of entire functions by certain general series.
- Ševeleva, M. V. 1630: Schwarz's formula for the equation  $\partial w/\partial \bar{z} + b\bar{w} = 0$ .
- Ševelo, V. M. 4370: (with Odariš, O. M.) The non-oscillation of solutions of second order nonlinear differential equations with delay. 6540: (with Varch, N. V.) The zeros of solutions of nonlinear non-autonomous ordinary differential equations of the second order.
- Ševrin, L. N. 3897: (with Kuroš, A. G.; Plotkin, B. I. and Sesekin, N. F.) Petr Grigor'evič Kontorovič: Obituary.
- Sexauer, N. E. 4003: Pythagorean triples over Gaussian domains with fundamental units.
- Sexton, Charles R. 1300: Corrigenda: "Statistics on certain large primes".
- Shafaat, A. 1263: On the number of topologies definable for a finite set. 136: (with Hussain, S. Manzur) On certain expressions involving  $p$ th roots of unity.
- Shafer, J. 1500: Note on power semigroups. 1499: (with Tamura, Takayuki) Power semigroups.
- Shah, G. M. 6511: On the zeros of Van Vleck polynomials.
- Shah, S. M. 2994: Entire functions satisfying a linear differential equation. 6663: (with Kurtz, L. C.) On the  $L^1$  norm and the mean value of a trigonometric series. 3275: (with Rees, Charles) On the absolute Nörlund summability of a Fourier series.
- Shahin, Jamal K. 3490: Some integral formulas for closed hypersurfaces in Euclidean space.
- Shamir, Eliahu. 3580: A representation theorem for algebraic and context-free power series in noncommuting variables.
- Shampine, L. F. 1780: Some nonlinear eigenvalue problems. 3247: Over-determined boundary value problems. 7093: Boundary value problems for ordinary differential equations. 3772: (with Bailey, Paul B.) On shooting methods for two-point boundary value problems. 6542: (with Bailey, Paul B.) Concerning periodic solutions of  $y'' + f(t, y, y') = 0$ . 6524: (with Bailey, Paul B. and Waltman, Paul E.) ★Nonlinear two point boundary value problems.
- Shanbhag, D. N. 6490: On some inequalities satisfied by the gamma function.
- Shaneson, Julius L. 5887: Embeddings with codimension two of spheres in spheres and  $H$ -cobordisms of  $S^3 \times S^3$ .
- Shankar Shukla, Kripa. 2563: Hindu methods for finding factors or divisors of a number.
- Shanks, Daniel. 2678: Corrigenda to: "Generalized Euler and class numbers". 2711: (with Parkin, Thomas R.) On the distribution of parity in the partition function. 2414: (with Lal, Mohan and Wrench, John W., Jr.) Corrigenda to: "The calculation of certain Dirichlet series".
- Shapiro, H. L. 3540: Closed maps and paracompact spaces. 3527: (with Alo, R. A.) A note on compactifications and semi-normal spaces.
- Shapiro, Harold S. 671: Some Tauberian theorems with applications to approximation theory.
- Sharma, A. 652: (with Meir, A.) Approximation methods by polynomials and power-series. 4212: (with Meir, A.) Symmetric differences and derivatives.
- Sharma, Banwari Lal. 3570: Calcul de groupes d'homotopie de BPL.
- Sharma, Bhagirath Lal. 1664: A note on Jacobi polynomials. 3061: Double integral representations for the hypergeometric functions of three variables. 5434: Some formulae for generalized function of



- two variables. 6497: Integrals associated with generalized function of two variables. 6702: Some theorems in operational calculus. 5433: (with Jindia, R. K.) Some definite integrals involving Legendre and generalised function of two variables. 472: (with Manocha, H. L.) Some formulae by means of fractional derivatives. 4298: (with Manocha, H. L.) Some formulae for Laguerre polynomials. 1665: (with Mittal, K. C.) Some new generating functions for Jacobi polynomials. 6498: (with Mittal, K. C.) Some formulae for Lagrange's polynomials. I, II.
- Sharma, K. D. 3786: (with Jain, M. K.) Cubature method for the numerical solution of the characteristic initial value problem  $u_{xy} = f(x, y, u, u_x, u_y)$ .
- Sharma, P. L. 5602: (with Venugopal Rao, V.) On the logarithmic ( $L$ ) mean of the conjugate Fourier series and its differentiated series.
- Sharma, R. M. 692: On the absolute summability by Borel's integral method of the derived Fourier series and its conjugate series. 5603: On Nörlund summability of derived Fourier series.
- Sharp, Henry, Jr. 2167: Cardinality of finite topologies.
- Sharpe, R. W. 369: (with Akcoglu, M. A.) Ergodic theory and boundaries.
- Sheffer, I. M. 4499: (with Krall, H. L.) Orthogonal polynomials in two variables.
- Shen Hsin-yao. 2222: Computation of secondary products.
- Shenk, Norman. 3201: The invariance of wave operators associated with perturbations of  $-\Delta$ .
- Shen Shih-i. 5054: The fundamental problem of stationary channels.
- Shen Xin-yao. See Shen Hsin-yao.
- Shephard, G. C. 822: An elementary proof of Gram's theorem for convex polytopes. 2087: The mean width of a convex polytope. 3447: A uniqueness theorem for the Steiner point of a convex region. 5784: Angle deficiencies of convex polytopes. 6833: Twenty problems on convex polyhedra. I. See also Grünbaum, Branko, #2085.
- Sheppard, W. F. 7065: ★The probability integral.
- Sher, R. B. 905: Toroidal decompositions of  $E^3$ . 906: A note on an example of Stallings. 2204: (with Alford, W. R.) A note on 0-dimensional decompositions of  $E^3$ . 902: (with Lambert, H. W.) Point-like 0-dimensional decompositions of  $S^2$ .
- Sherman, Thomas L. 1677: Generalizations of a property of Tchebycheff polynomials.
- Shields, A. L. 1975: (with Rubel, L. A.) Hyperbolic mean automorphic functions. 2156: (with Brown, Leon and Schnitzer, F.) A note on a problem of D. Pompeiu.
- Shiffman, Bernard. 464: On the removal of singularities of analytic sets.
- Shih, Fu. 1839: (with Lee, Shing-meng) On a family of Lototsky transformations.
- Shih, Weishu. 2249: On the symbol of a pseudo-differential operator.
- Shih Chi-chi. 5113: A method of constructing the orthogonal Latin squares.
- Shikata, Yoshihiro. 2133: On the differentiable pinching problem.
- Shilov, Georgi E. See Šilov, G. E.
- Shimemura, E. 3845: (with Matsumoto, T.) The Kuhn-Tucker conditions and multistage games.
- Shimizu, Ryoichi. 6981: Characteristic functions satisfying a functional equation. I.
- Shimura, Goro. 6289: Discontinuous groups and abelian varieties.
- Shimura, Toshio. 3674: A note on composition and rejection method. 2329: (with Takahasi, Koiti) On the moments and the examples of the distribution of the time to extinction in the Galton-Watson process.
- Shinbrot, Marvin. 6801: Asymptotic behavior of solutions of abstract wave equations.
- Shinohara, Masahiko. 6995: On the application of the potential theory to martingales.
- Shintani, Takuro. 6384: On certain square integrable irreducible unitary representations of some  $\mathbb{P}$ -adic linear groups.
- Shirakawa, Isao. 5119: (with Takahashi, Hiromitsu and Ozaki, Hiroshi) On the planar decomposition of a complete bipartite graph.
- Shiraki, Takanori. 3518: A note on  $M$ -spaces.
- Shiratsani, Katsumi. 2762: On certain formal Lie groups over  $p$ -adic integer rings.
- Shisha, O. 1864: Best approximation on some finite sets. 5582: (with Mond, B.) The degree of convergence of sequences of linear positive operators.
- Shoenfield, Joseph R. 1224: ★Mathematical logic.
- Shorack, Galen R. 2357: (with Pyke, Ronald) Weak convergence of a two-sample empirical process and a new approach to Chernoff-Savage theorems. 5967: (with Pyke, Ronald) Weak convergence and a Chernoff-Savage theorem for random sample sizes.
- Shouse, Otis D. 1668: (with Hsieh, Po-fang) Reduction of order of a system of linear nonhomogeneous ordinary differential equations.
- Shub, Michael. 3580: (with Epstein, D. B. A.) Expanding endomorphisms of flat manifolds.
- Shukla, Kripa Shankar. See Shankar Shukla, Kripa.
- Shulman, Lawrence. 4664: (with de Branges, Louis) Perturbations of unitary transformations.
- Shult, Ernest. 314: The solution of Boen's problem.
- Sibagaki, Wasao. 3220: (with Rikimaru, Hisako) On the E. Hopf's weak solution of the initial value problem for the Navier-Stokes equations.
- Sibirskii, K. S. 3145: Dynamical systems close to Hamiltonian ones. 4102: A minimal polynomial basis of unitary invariants of a square matrix of order three. 374: (with Stahi, A. M.) Limiting properties of partially ordered dispersive dynamical systems.
- Šibjak, Andrej. See Szybiak, Andrzej.
- Sibner, L. M. 619: A remark on the question of uniqueness for the Tricomi problem. 6614: A boundary value problem for an equation of mixed type having two transitions.
- Sibner, Robert J. 5389: Remarks on the Koebe Kreinormierungsproblem.
- Sibony, Daniel. 1643: (with Mokobodzki, Gabriel) Principe du minimum et maximalité en théorie du potentiel. 1973: (with Mokobodzki, Gabriel) Cônes de fonctions continues.
- Sibuya, Yasutaka. 529: Subdominant solutions of the differential equation  $y'' - \lambda^2(x-a_1)(x-a_2)\cdots(x-a_n)y=0$ .
- Siehler, J. 130: Concerning endomorphisms of finite algebra. 3981: Category of commutative groupoids is binding.
- Sida, D. W. 5442: A note on deriving the expansion of  $x^k$  in terms of polynomials.
- Šidák, Zbyněk. 5965: On multivariate normal probabilities of rectangles: Their dependence on correlations. 4925: (with Hájek, Jaroslav) ★Theory of rank tests.
- Sidar, Menahem. 7196: An iterative algorithm for optimum control problems.
- Siddiqi, A. H. 1889: A note on Fourier series of functions of  $Z$  class.
- Siddiqui, M. M. 986: Strong law of large numbers for branching processes.
- Sidorov, E. A. 375: The existence of topologically indecomposable transformations of an  $n$ -dimensional region which are not ergodic.
- Sidorov, Ju. V. 1766: The Cauchy problem for an equation of the first order in time with two independent variables.
- Sidorov, N. A. 6720: Solution of the Cauchy problem for a certain class of integro-differential equations with analytic nonlinearities.
- Siebenmann, L. C. 3567: On the homotopy type of compact topological manifolds.
- Siegel, Carl Ludwig. 4022: Über die Fourierschen Koeffizienten von Eisensteinschen Reihen der Stufe  $T$ . 4045: Zum Beweise des Starkenschen Satzes.
- Siegel, Jerrold. 913: Higher order cohomology operations in local coefficient theory.
- Siegmund, D. 7043: On the asymptotic normality of one-sided stopping rules. 7042: (with Simons, Gordon and Feder, Paul) Existence of optimal stopping rules for rewards related to  $S_n/n$ .
- Sieklicki, K. 3541: On imbedding of mappings.
- Sierpiński, Wacław. 2665: ★200 problems in the elementary theory of numbers. 4004: Un théorème sur les nombres triangulaires.
- Sievers, Malte. 3029: (with Köhn, Johannes) Zum Cauchyschen und Dirichletschen Problem.
- Sigillito, V. G. 3184: A priori inequalities and pointwise bounds for solutions of fourth order elliptic partial differential equations. 1816: (with Kuttler, J. R.) Inequalities for membrane and Stekloff eigenvalues.
- Sigmon, Kermit. 3529: A note on means in Peano continua.

- Sigrist, François. 5876: Groupes d'homotopie des variétés de Stiefel complexes. 6936: Obstruction et transgression cohomologique dans les espaces fibrés.
- Šiljak, D. D. 7112: (with Kokotović, P.) Automatic analog solution of algebraic equations and plotting of root loci by generalized Mitrović's method.
- Šilov, G. E. 5694: ★Generalized functions and partial differential equations. 1554: (with Fan Dyk Tin') ★Integral, measure and derivative on linear spaces. 5693: (with Gel'fand, I. M.) ★Generalized functions. Vol. 2. Spaces of fundamental and generalized functions. 4204: (with Malkov, E. V.) The matrix of an automorphism of a torus of countable dimension. 5677: (with Bogoljubov, N. N. and Gohberg, I. C.) Mark Grigor'evič Kreĭn: On his sixtieth birthday.
- Silver, Roland. 2534: The group of automorphisms of the game of 3-dimensional ticktacktoe.
- Silverstein, M. L. 2321: A new approach to local times. 3660: Markov processes with creation of particles.
- Silvey, S. D. 1039: (with Laycock, P. J.) Optimal designs in regression problems with a general convex loss function.
- Šimanov, S. N. 5501: (with Klefmanov, A. F.) On the question of the existence and the construction of periodic solutions of systems with lag which are close to Ljapunov systems.
- Simary, M. A. 6501: (with Ragab, F. M.) Definite integrals involving Whittaker functions.
- Simboan, Gabriel. 2551: (with Theodorescu, Radu) Sur la liaison entre la fonction de concentration, la concentration, l'énergie informationnelle et l'entropie. 3605: (with Reischer, Corina and Theodorescu, R.) ★Theory of probability.
- Simeunović, D. M. 383: Sur les limites des modules des zéros des polynômes.
- Simionescu, C. 1369: (with Vranceanu, G.) Sur les espaces de Riemann associés à une forme cubique.
- Simoda, Seturo. 572: Remarque sur l'estime intérieure pour les dérivées des solutions de l'équation linéaire du type elliptique et du second ordre. 597: Sur la régularité des points frontières relative à l'équation linéaire du type elliptique et du second ordre. II.
- Simon, L. 4423: Generalizations of the Dirichlet problem for the equation  $\Delta u = f$ .
- de Simon, Luciano. 4415: (with Torelli, Giovanni) Soluzioni periodiche di equazioni a derivate parziali di tipo iperbolico non lineari.
- Simon, Udo. 6847: Zur Relativgeometrie: Symmetrische Zusammenhänge auf Hyperflächen.
- Simons, F. H. 371: (with Helmberg, G.) A dualization of Kac's recurrence theorem.
- Simons, Gordon. 7042: (with Siegmund, David and Feder, Paul) Existence of optimal stopping rules for rewards related to  $S_n/n$ .
- Simons, S. 4553: The iterated limit condition, a Fubini theorem and weak compactness.
- Simpson, A. 1118: (with Tabarrok, B.) On Kron's eigenvalue procedure and related methods of frequency analysis.
- Simpson, R. Bruce. 2466: A fundamental solution for a biharmonic finite-difference operator. 3414: Approximation of the minimizing element for a class of functionals.
- Sims, Charles C. 1456: Graphs and finite permutation groups. II. 2854: (with Higman, Donald G.) A simple group of order 44,352,000.
- Sims-Williams, J. H. 2550: (with Baldwin, J. F.) An on-line control scheme using a successive approximation in policy space approach.
- Sinai, Ja. G. 4752: Asymptotic behavior of closed geodesics on compact manifolds with negative curvature. 370: (with Anosov, D. V.) Certain smooth ergodic systems.
- Šinderman, I. D. 3147: Infinite systems of linear differential equations.
- Sinel'nikova, N. I. 2975: Certain chord distortion type problems on classes of schlicht functions.
- Singal, M. K. 5850: (with Rani, Asha) A note on almost-countably paracompact spaces.
- Singh, Balwant. 4058: On a conjecture of Samuel.
- Singh, D. M. 5834: A few remarks on subspaces of special Kawaguchi spaces.
- Singh, Daroga. 3726: Estimates in successive sampling using a multi-stage design.
- Singh, K. D. 836: (with Lane, N. D.) Union and extension of arcs of cyclic order three.
- Singh, M. P. 4997: (with Sathi, H. L.) An exact solution in rotating flow.
- Singh, S. K. 4263: Exceptional values of entire and meromorphic functions.
- Singh, S. P. 5619: Two theorems on generalized Meijer-Laplace transform. 5620: Infinite integrals involving  $G$ -functions.
- Singh, Tarkeshwar. 5604: Absolute Nörlund summability of a factored Fourier series.
- Singh, U. N. 3900: Professor B. N. Prasad.
- Singh, V. N. See Vilenkin, N. Ja., #5429.
- Singhal, J. P. 3062: (with Srivastava, H. M.) A note on certain hypergeometric functions of two and three variables.
- Singh Varma, H. O. 3597: The topology of  $E III$  and a conjecture of Atiyah and Hirzebruch.
- Singleton, Robert. 1272: There is no irregular Moore graph.
- Sinha, R. S. 6880: (with Mishra, R. S.) Congruences of curves through points of a subspace and hypersurface of a Finsler space.
- Sinha, S. M. 5028: (with Swarup, Kanti) Mathematical programming: A survey.
- Sinkhorn, Richard. 1395: Concerning the minimum function of a stochastic matrix. 4101: Concerning the Jordan normal form. 6305: Two results concerning doubly stochastic matrices. 4522: (with Knopp, Paul) A note concerning simultaneous integral equations.
- Sion, Maurice. 5332: ★Introduction to the methods of real analysis.
- Sioson, F. M. 2892: On free Abelian  $m$ -groups. I, II, III. 5126: A remark on Newman algebras.
- Siotañi, Minoru. 2373: Cancellation of Section 5 of: "Some applications of Loewner's ordering on symmetric matrices".
- Šipos, Andrej. 829: (with Čepel, Ján) Envelope of an  $n$ -parameter system of surfaces in space.
- Širinbekov, M. 4287: A certain class of polynomially convex regions.
- Širjaev, A. N. 1186: Some new results in the theory of controlled random processes. 4917: Investigations in statistical sequential analysis.
- Širokov, A. P. 852: On a type of  $G$ -structures defined by algebras. 6887: On the question of pure tensors and invariant subspaces in manifolds with almost algebraic structure.
- Sirota, A. I. 1521: (with Solodovnikov, A. S.) Centers of real simple Lie groups and kernels of their homomorphisms.
- Sirota, S. 883:  $\kappa$ -points in topological spaces.
- Širšov, A. I. 19: (with Aleksandrov, P. S.; Eršov, Ju. L.; Kargapolov, M. I.; Kuz'min, E. N.; Smirnov, D. M. and Taĭmanov, A. D.) Anatolii Ivanovič Mal'cev: Obituary.
- Sitarman, Y. 3244: Tauberian theorems for "infinite" logarithmic summability ( $L$ ). 5572: Addendum to: "On Tauberian theorems for the  $S_n$ -method of summability".
- Sivaramakrishna, Anantharaman. 5229: Sur la représentabilité de certains foncteurs contravariants.
- Sivardière, Jean. 6378: Analogie entre les représentations des groupes doubles et des groupes d'espace.
- Šluk, P. I. 1591: (with Černikov, V. V.) Distortion theorems for univalent functions with real coefficients.
- Skala, Helen. 1286: The general solution of an arbitrary Boolean equation.
- Skatechil, V. G. 523: A stability condition of a certain system of differential equations with a parameter.
- Skibinsky, Morris. 3624: The range of the  $(n+1)$ th moment for distributions on  $[0, 1]$ .
- Skljarenko, E. G. 4806: Almost acyclic mappings.
- Šklover, M. D. 1737: Classical dynamical systems on the torus with continuous spectrum.
- Skobljia, N. S. 480: (with Krylov, V. I.) A remark on convergence and error estimate of an approximate inverse of the Laplace transform by means of the Legendre and Jacobi orthogonal polynomials.
- Skornjakov, L. A. 1430: Lectures on homological algebra. 2915: Homological classification of rings. 5769: (with Argunov, B. I.) Configurational theorems.
- Skornjakov, L. A. See Skornjakov, L. A.
- Skoroĥod, A. V. 5934: Homogeneous Markov processes without discontinuities of the second kind. 5078: (with Daniljuk, I. I.; Koroljuk, V. S.; Mitropol'skii, Ju. O. and Jadrenko, M. I.) Iosif Il'in Gihman: On the occasion of his 50th birthday.

- Skotnikova, G. A. 403: (with Gol'dina, N. M.) Ranges of values of certain coefficient systems of functions typically real in a ring.
- Skoug, D. L. 6428: Generalized Ilstow and Feynman integrals.
- Skrupnik, V. P. 3162: Certain systems with transformed argument in the case when the transformations of the argument depend on the time and on the solution. 4356: Degenerate systems and a small parameter at the derivative. 6554: Stability in the neighborhood of a certain state.
- Skula, Ladislav. 6190: The subsets  $P^+$  and  $P^-$  of the split interval. 6219:  $m$ -ideal topologies in ordered sets.
- Skupień, Z. 2630: On the locally Hamiltonian graphs and Kuratowski's theorem.
- Skvortsov, P. G. 603: Upper estimate for the variation of the sums of certain summation methods.
- Skvortsov, V. A. 1884: Calculation of the coefficients of an everywhere converging Haar series.
- Skvortsova, M. G. 684: The membership of an orthogonal series in a class. I. 685: New tests for the membership of an orthogonal series in a class. I. 1890: Tests for the membership of a trigonometric Fourier series in a class. I. 4495: Multipliers of Fourier series. 4496: Some new theorems on classes of multipliers transforming Fourier series. II.
- Skwarczynski, M. 460: A representation of a bounded function as infinite product in a domain with Bergman-Shilov boundary surface.
- Slack, R. S. 3661: A branching process with mean one and possibly infinite variance.
- Slagle, J. R. 431: Generalizations of a complex analogue of the real Teichmüller polynomial theorem.
- Slater, Michael. 267: The open case for simple alternative rings.
- Slaughter, F. G., Jr. 890: (with Roberts, J. H.) Metric dimension and equivalent metrics.
- Slawny, J. 5331: On differentiations of algebra of dynamical variables.
- Sleeman, B. D. 3070: On parabolic cylinder functions. 510: (with Arcott, F. M.) Multiplicative solutions of linear differential equations.
- Slepčuk, K. M. See Šlipenčuk, K. M.
- Slimac, O. 6577: (with Babuř, V.) System of equations with cyclic partial derivatives.
- Šlipenčuk, K. M. 1845: Tauberian type theorems for matrix methods of summation of series and their application. 4462: The analogue of a certain Tauberian type theorem for infinite products.
- Slisenko, A. O. 3920: Arithmetical operations on certain sets of duplexes.
- Śliwiński, E. 4397: On some oscillation problems for elliptic equations of fourth order.
- Slobodjan, Ju. S. 6873: On three-dimensional Riemannian spaces which admit one-parameter families of totally geodesic surfaces.
- Ślomiński, J. 5135: Peano-algebras and quasi-algebras.
- Slonovskii, N. V. 3287: Asymptotic expansions of Hankel transforms.
- Sloss, James M. 1784: Reflection laws of systems of second order elliptic differential equations in two independent variables with constant coefficients. 4402: Reflection laws of high order elliptic differential equations in two independent variables with constant coefficients and unequal characteristics across analytic boundary conditions.
- Sloyer, C. 6900: (with Nielsen, R.) On embedding in quasi-cubes.
- Slugin, S. N. 1950: Topological semiordered analogs of function spaces.
- Sluhaev, V. V. 2495: Equiaffine-invariant nonholonomic surfaces of a liquid flow.
- Ślupecki, J. 3904: (with Borkowski, L.) ★Elements of mathematical logic and set theory.
- van Slyke, R. M. See Van Slyke, R. M.
- Smajdor, A. 4443: Remarks on monotonic solutions of a functional equation.
- Smajdor, W. 3232: On the existence and uniqueness of analytic solutions of the functional equation  $\varphi(z) = h(z, \varphi[f(z)])$ . 3233: Local analytic solutions of the functional equation  $\varphi(z) = h(z, \varphi[f(z)])$  in multidimensional spaces.
- Smale, S. 3598: Differentiable dynamical systems.
- Small, Lance W. 6315: Orders in Artinian rings. II.
- Smirnov, D. M. 19: (with Aleksandrov, P. S.; Eršov, Ju. L.; Kargapolov, M. I.; Kus'min, E. N.; Taimanov, A. D. and Širšov, A. I.) Anatolii Ivanovič Mal'cev: Obituary.
- Smirnov, G. A. 32: The proof of basic theorems in the theory of strong logical inference. 1844: A property of Cesàro summability methods for integrals.
- Smirnov, Ju. N. 1725: Level curves of  $\mu$  in zones of instability for Mathieu's equation.
- Smirnov, V. I. 5369: (with Lebedev, N. A.) ★Functions of a complex variable: Constructive theory. See also Ladyženskaja, O. A.; Lozinikii, S. M. and Mihlin, S. G., #3898.
- Smirnova, E. D. 45: (with Tavenec, P. V.) Semantics in logic.
- Smith, B. R. 7218: (with Tones, G. C.) An iterative approximation procedure for automatic filter synthesis.
- Smith, C. R. 3308: A characterization of star-shaped sets.
- Smith, David A. 3270: Circularly generated abelian groups.
- Smith, Francis J. 6031: (with O'Hara, H.) Error estimation in the Clenshaw-Curtis quadrature formula.
- Smith, G. F. 5240: Tensor and integrity bases for the gyroidal crystal class.
- Smith, Harvey A. 6762: Positive functionals and representations of tensor products of symmetric Banach algebras.
- Smith, Kennan T. 571: (with Hanna, Martin S.) Some remarks on the Dirichlet problem in piecewise smooth domains. 4261: (with Adams, R. and Aronson, N.) Theory of Bessel potentials. II.
- Smith, Larry. 2259: Cohomology of  $\Omega(G/U)$ . 4816: Primitive loop spaces. 6033:  $\Pi_1(S^n) = 0$ . 3240: (with Stong, R. E.) The structure of BSC. 2241: (with Stong, R. E.) Exotic cobordism theories associated with classical groups.
- Smith, P. A. 4810: Abelian actions on 2-manifolds.
- Smith, R. A. 2783: Infinite product expansions for matrix  $n$ -th roots. 4094: On minimising the condition of a Lyapunov matrix.
- Smith, Roberta. 4946: (with Hansen, Eldon) Interval arithmetic in matrix computations. II.
- Smith, W. 3853: (with Watson, G. S.) Diffusion out of a triangle.
- Smith, Wm. B. 2371: (with Hocking, R. R.) Estimation of parameters in the multivariate normal distribution with missing observations.
- Smithson, Raymond E. 2190: A note on acyclic continua. 6017: A characterization of lower semi-continuity.
- Smits, T. H. M. 4107: Skew polynomial rings.
- Smolin, Ju. N. 1877: A generalization of the notion of orthogonality.
- Smorodinsky, Meir. 5055: On infinite decodable codes. 7205: The capacity of a general noiseless channel and its connection with Hausdorff dimension.
- Šmul'jan, Ju. L. 784: Division in the class of  $J$ -expansive operators.
- Smyth, Brian. 5827: (with Nomizu, Katsumi) Differential geometry of complex hypersurfaces. II.
- Snapper, Ernst. 3937: The polynomial of a permutation representation.
- Sneddon, Ian N. 4516: A procedure for deriving inversion formulae for integral transform pairs of a general kind. See also Korovkin, P. P., #5340.
- Šneerson, M. S. 7141: Maxwell's equations and functionally invariant solutions of the wave equation.
- Šneider, V. E. 3516: A metrization theorem.
- Šneperman, L. B. 1511: The imbedding of a topological semigroup into a bicompact topological semigroup.
- Šniatycki, A. 5759: An axiomatization of non-Desarguesian geometry based on the half-plane as the primitive notion.
- Snyder, A. K. 3242: On generating heavy points with positive matrices. 5568: (with Chang, S. C.; Macphail, M. S. and Wilansky, A.) Consistency and replaceability for conull matrices.
- Snyder, H. H. 6472: ★A hypercomplex function-theory associated with Laplace's equation.
- Sobczyk, Andrew. 2615: Graph-colouring and combinatorial numbers.
- Sobolev, S. L. 4284: Sur une classe des fonctions de plusieurs variables indépendantes.
- Sobolev, Sergei L. See Sobolev, S. L.
- Sobolevskii, P. E. 2034: Comparison theorems for fractional powers of operators. 6627: Elliptic equations in a Banach space. 6588: (with Raikin, V. G.) A priori estimates of the solutions of a certain class of nonlinear nonstationary equations.
- Socher, A. 3918: (with Jech, T.) Applications of the  $\Theta$ -model.
- Sočnev, A. Ja. 6491: Approximation of ultrahyperbolic and elliptic integrals without expansion of the integrals in infinite series.
- Soeets, Edward. 3493: Convexity in Busemann spaces.



- Solbel'man, O. I. 4662: Similarity of triangular operators to diagonal ones. 3357: (with Gohberg, I. C.) Some remarks on similarity of operators.
- Sokolov, B. M. 2554: A gradient algorithm for instructing a recognition system.
- Sokolov, Ju. D. See History of national mathematics in four volumes. Vol. II. 1901-1917, #3888.
- Solari, L. 7161: Modèles et décisions économiques. Sur les fondements de l'économie pure.
- Solnceva, T. V. 4703: (with Anisimova, E. P.) Certain questions on the synthetic theory of four-dimensional space.
- Solodovnikov, A. S. 1521: (with Sirota, A. I.) Centers of real simple Lie groups and kernels of their homomorphisms.
- Sologub, V. S. 5074: Development of the theory of the differential equation  $\Delta u + k^2 u = 0$  in the second half of the XIX century. See also History of national mathematics in four volumes. Vol. II. 1901-1917, #3888.
- Solomencev, E. D. 452: Harmonic functions representable by Green's type integrals. I. 453: Harmonic functions representable by Green's type integrals. II. 1638: Certain questions related to the fundamental Green's formula for harmonic functions.
- Solomjak, M. Z. 3372: Transformers generated by Stieltjes double operator integrals.
- Solomon, G. 6266: (with Berlekamp, E. R. and Rumsey, H.) On the solution of algebraic equations over finite fields.
- Solomon, Liviu. 7120: ★Elasticité linéaire.
- Solonnikov, V. A. 4388: Estimates in  $L_p$  of solutions of elliptic and parabolic systems.
- Solovay, R. M. 57: (with Lévy, A.) Measurable cardinals and the continuum hypothesis.
- Solov'ev, A. D. 5971: Letter to the editor. 993: (with Beljaev, Ju. K. and Gnedenko, B. V.) On some stochastic problems of reliability theory.
- Solov'ev, V. A. 733: The extension of a semicontinuous norm and a monotonically complete norm from a  $KN$ -linear to its Dedekind completion.
- Solov'eva, E. N. 3415: (with Budak, B. M. and Berkovič, E. M.) Difference approximations in optimal control problems.
- Soloviev, A. D. See Solov'ev, A. D.
- Sominiski, I. S. See Sominskii, I. S.
- Sominskii, I. S. 5066: ★The method of mathematical induction.
- Sondermann, Dieter. 6440: Mesures sur un espace localement borné. 6441: Caractérisations des espaces  $\mathcal{B}$ -compacts,  $\mathcal{B}$ -pseudocompacts et  $\mathcal{B}$ -réelcompacts par leurs mesures.
- Sone, Noriyuki. 3055: Multivalent mappings in several complex variables.
- Soni, Kusum. 707: Fractional integrals and Hankel transforms.
- Sonin, N. Ja. See Kropotov, A. I., #3896.
- Sonis, M. G. See Šilov, G. E. and Fan Dyk Tin', #1554.
- Sonner, Johann. 124: Duality criteria. 1433: Lifting inductive and projective limits. 4055: Cauchy conditions concerning differentiability relative to valued algebraic extensions.
- Šepolov, N. N. 486: (with Balnov, D. D.) A certain  $n$ th order linear differential equation.
- Sorani, Giuliano. 1443: Sui funtori omologici e coomologici.
- Šorohova, Z. P. 432: On the question of the completeness of the function system  $\{z^k\}$  on infinite curves in the complex plane.
- Sorokin, A. S. 1571: The extension of P. P. Kufarev's variational theorem to multiply connected domains.
- Sosinskii, A. B. 919: Homotopies of complements to knots.
- Sotomayor, J. 6967: Generic one-parameter families of vector fields on two-dimensional manifolds.
- de Souza, Jayme Rios. See Rios de Souza, Jayme.
- Sova, Miroslav. 729: Primitiveness of functions in linear topological spaces.
- Soyzal, Selma. 2028: Sur une généralisation de la notion de fonction caractéristique de la théorie des matrices finies à certaines transformations linéaires dans l'espace de Hilbert.
- Spagnolo, Sergio. 612: Sul limite delle soluzioni di problemi di Cauchy relativi all'equazione del calore. 3309: Alcune osservazioni su certe famiglie di limitati di uno spazio lineare.
- Spallek, Karlheinz. 3588: Differenzierbare Kurven auf analytischen Mengen. 3205: Ein Hebbarkeitssatz in der Algebra. 6483: Über Singularitäten analytischer Mengen.
- Spanier, J. 1070: (with Hall, C. A.) Nested bounds for the spectral radius.
- Späro, D. I. 2325: The Martin boundary for a portion of a Markov chain.
- Speiser, Andreas. See Euler, Leonard, #1218.
- Spence, D. A. 2491: Self similar solutions to adhesive contact problems with incremental loading. 2492: A Wiener-Hopf equation arising in elastic contact problems.
- Spencer, Joel. 2616: Maximal consistent families of triples.
- Spencer, L. V. 5443: (with Flusser, P.) Properties of a useful biorthogonal system.
- Spicer, Donald Z. 2001: Group algebras of vector-valued functions. 2002: Semisimplicity of group algebras of vector-valued functions.
- Spijker, M. N. 1102: On the consistency of finite-difference methods for the solution of initial-value problems.
- Spilker, Jürgen. 2692: Eine Anzahlfunktion bei diskontinuierlichen Gruppen.
- Spira, Robert. 4036: Zeros of sections of the zeta function. II. 5199: Polynomial interpolation over commutative rings.
- Spiridonov, V. S. 7085: The application of the gradient relaxation method for the solution of systems of nonlinear equations.
- Spitznagel, Edward L., Jr. 2867: Terminality of the maximal unipotent subgroups of Chevalley groups. 2551: (with Saygenda, Stephen A.) A computer study of the orders of finite simple groups.
- Spjøtvoll, E. 2381: Confidence intervals and tests for variance ratios in unbalanced variance components models. 4905: Most powerful tests for some non-exponential families. 7048: A note on robust estimation in analysis of variance.
- Sprecher, David A. 669: On best approximations of functions of two variables.
- Sprent, P. 5994: A generalized least-squares approach to linear functional relationships.
- Sprindžuk, V. G. 1323: The finiteness of the number of rational and algebraic points on certain transcendental curves. 6247: Effectivization in certain problems of Diophantine approximation theory. 151: (with Vinogradov, A. I.) The representation of numbers by binary forms.
- Springer, T. A. 2763: Weyl's character formula for algebraic groups. See also Proc. Conf. Local Fields (Driebergen, 1966), #3855.
- Sprott, D. A. 2368: The estimation of prior distributions in problems of decision.
- Squire, William. 1075: The relation between absolute iteration and Newton's method.
- Šragin, I. V. 3344: On the theory of Orlicz spaces.
- Sreenivasulu, V. 4261: The maximum term of an entire function.
- Sridharan, R. 4139: Filtered algebras. 5255: (with Roy, Amit) Higher derivations and central simple algebras.
- Srinivasacharyulu, K. 3410: On some non-linear problems.
- Srinivasan, B. R. 332: Weakly inverse semigroups.
- Srivastava, H. M. 4360: Finite summation formulas associated with a class of generalized hypergeometric polynomials. 6500: On the reducibility of certain hypergeometric functions. 3062: (with Singhal, J. P.) A note on certain hypergeometric functions of two and three variables.
- Srivastava, J. N. 1035: (with Roy, S. N.) Inference on treatment effects in incomplete block designs.
- Srivastava, K. N. 1905: A note on a class of integral equations involving ultraspherical polynomials as kernel. 1006: On some integral equations involving Jacobi polynomials.
- Srivastava, M. S. 2379: (with Ogilvie, J.) The performance of some sequential procedures for a ranking problem.
- Srivastava, O. P. 1048: Asymptotic independence of certain statistics connected with the extreme order statistics in a bivariate distribution.
- Srivastava, Pramila. 6643: (with Richert, H.-E.) A convexity theorem for strong Riesz summability.
- Srivastava, R. S. L. 1611: (with Juneja, O. P.) On proximate type of entire functions.
- Srivastava, S. S. 5041: Reliability of complex systems—A review.
- Srivastava, Satya Narain. 1603: On the zeros of integral functions. 4283: On the mean values of an integral function of two complex variables.

- Srivastava, Surendra K. 2374: A note on Olkin's multivariate ratio estimator.
- Srivastava, V. K. 7046: (with Roy, A. R.) On the method of mixed estimation with autocorrelated disturbances.
- Šrédka, Tadeusz. 956: Fonctions limites et degrés de convergence dans la distribution de Polya.
- Srožiddinov, H. M. 4640: (with Esajan, A. R.) A priori estimation of the nearness of the solutions of the precise and the approximate equation. 3373: (with Esajan, A. R. and Stecenko, V. Ja.) Estimation of errors in approximate solution of linear equations in a space with a cone.
- Stahl, A. M. 3549: The returnability of points and regions in partially ordered dynamical systems. 374: (with Sibirskii, K. S.) Limiting properties of partially ordered dispersive dynamical systems.
- Stalkos, Vasillos A. 1704: A note on the boundedness of solutions of ordinary differential equations.
- Stallings, John R. 4153: On torsion-free groups with infinitely many ends.
- Stam, A. J. 2390: On shifting iterated convolutions. II.
- Stamate, I. 633: (with Ghircioașiu, N.) Functional equations which define trigonometric functions. 1826: (with Ghircioașiu, N.) A generalization of an equation of D. Pompeiu. 5561: (with Ghircioașiu, N.) A problem relative to the second formula of the mean. 634: (with Roșcău, Hortensia) A class of functional equations. 1825: (with Roșcău, Hortensia) Matrix generalization of the functional equation of N. I. Lobačevskii with several functions.
- Stamm, Emil. 2198: If two cows walk on homotopic paths, they have to pass a common gate.
- Stammbach, U. 278: (with Knus, M. A.) Anwendungen der Homologietheorie der Liealgebren auf Zentralreihen und auf Präsentierungen.
- Stampfli, Joseph G. 4655: Minimal range theorems for operators with thin spectra. 4661: (with Berger, C. A.) Norm relations and skew dilations.
- Stănișă, O. 3990: (with Bănică, C.) Some remarks on the finite morphisms.
- Stancu, D. D. 2352: On the moments of negative order of the positive Bernoulli and Poisson variables.
- Stange, K. 3767: Die wirtschaftlichste Verteilung des Prüfaufwands auf die verschiedenen Stufen eines Modells mit mehreren Zufallskomponenten. 4932: Pläne für messende Prüfung bei bekannter Varianz der Fertigung, und einem nach oben und unten abgegrenzten Toleranzbereich für die Merkmalswerte.
- Stanilov, Grozju. 2112: Some spaces related to the biaxial spaces.
- Stanković, B. 6703: (with Despotović, D.) Continuité d'une fonction opératoire.
- Stanley, M. G. 3977: On the product of equivalence relations.
- Stanton, R. G. 3994: (with Kalbfleisch, J. G.) On the maximal triangle-free edge-chromatic graphs in three colors. 6192: (with Kalbfleisch, J. G.) Covering problems for dichotomized matchings.
- Starcev, A. V. 4898: (with Nagaev, A. V.) A threshold theorem for a certain model of an epidemic.
- Stark, H. M. 2707:  $L$ -functions and character sums for quadratic forms. I.
- Stark, J. M. 6070: Application of Bergman's integral operators to transonic flows.
- Starke, Peter H. 6135: Hüllenoperationen für nicht-deterministische Automaten.
- Starokadomskii, L. O. 3795: The approximate solution of integral equations by the collocation method and by the method of reduction to the problem of Čebyšev approximation.
- Starostin, A. I. 308: Minimal groups not having given properties.
- Stasheff, James. 2228: More characteristic classes for spherical fibre spaces.
- Statulevičius, V. 3638: Limit theorems in the case of a stable limit law. 4856: The probabilities of large deviations for a sum of a random number of independent random values.
- Statuljavičius, V. A. See Statulevičius, V.
- Stear, Edwin B. 1194: (with Schwartz, Lawrence) A valid mathematical model for approximate nonlinear minimal-variance filtering.
- Stearns, R. E. 6112: Convergent transfer schemes for  $N$ -person games.
- Stecenko, V. Ja. 2042: A theorem on the complete continuity of an integral operator, and some applications of it. 2424: A certain method of speeding up the convergence of iteration processes.
- 2041: (with Samadov, K.) On the estimation of solutions of linear operator equations. 3373: (with Esajan, A. R. and Srožiddinov, H. M.) Estimation of errors in approximate solution of linear equations in a space with a cone. 5709: (with Imomnazarov, B. and Sabirov, T.) The spectral properties of certain classes of linear positive operators.
- Steck, G. P. 2353: A note on contingency-type bivariate distributions.
- Steenrod, N. E. 2161: (with Chinn, W. G.) ★First concepts of topology: The geometry of mappings of segments, curves, circles, and discs.
- Steer, Brian. 3590: Une interprétation géométrique des nombres de Radon-Hurwitz. 5871: Note on the Hurewicz homomorphism in the space of homotopy equivalences of  $S^n$  preserving a base-point.
- Stefani, V. N. 1314: The equation  $x^3 + 6xyz + y^3 - mz^3 = 0$ , and certain other equations related to it.
- Stefani, W. 3997: Über eine Klasse von Polynomen und ihre Beziehungen zu den Bernoullischen Zahlen. II.
- Stegmüller, Wolfgang. 1239: ★Das Wahrheitsproblem und die Idee der Semantik. Eine Einführung in die Theorien von A. Tarski und R. Carnap.
- Stein, Elias. 695a: Classes  $H^p$ , multiplicateurs et fonctions de Littlewood-Paley. 695b: Classes  $H^p$ , multiplicateurs et fonctions de Littlewood-Paley. Applications de résultats antérieurs. 695c: Classes  $H^p$  et multiplicateurs: Cas  $n$ -dimensionnel. 5422: (with Weiss, N. J.) Convergence of Poisson integrals for bounded symmetric domains.
- Stein, F. Max. 4476: (with Huffstutler, R. G.) The approximate solution of certain nonlinear differential equations.
- Stein, M. L. 7068: (with Metropolis, N. and Stein, P. R.) Stable states of a non-linear transformation.
- Stein, P. R. 7068: (with Metropolis, N. and Stein, M. L.) Stable states of a non-linear transformation.
- Stein, Philip. 2924: A proof of a classical theorem in multiple integration.
- Steinberg, Robert. 6288: ★Endomorphisms of linear algebraic groups.
- Steiner, A. K. 3525: (with Steiner, E. F.) Precompact uniformities and Wallman compactifications. 3526: (with Steiner, E. F.) Wallman and  $Z$ -compactifications. 5840: (with Steiner, E. F.) Topologies with  $T_1$ -complements. 6897: (with Steiner, E. F.) A  $T_1$ -completion for the reals.
- Steiner, E. F. 3525: (with Steiner, A. K.) Precompact uniformities and Wallman compactifications. 3526: (with Steiner, A. K.) Wallman and  $Z$ -compactifications. 5840: (with Steiner, A. K.) Topologies with  $T_1$ -complements. 6897: (with Steiner, A. K.) A  $T_1$ -completion for the reals.
- Steiner, Hans-Georg. 4907: Eine mathematische Theorie der Rangordnungen und Konsensus-Rangordnungen. Material zum Unterrichtsthema: Mathematische Modelle der Wirklichkeit.
- Steinfeld, O. 4131: On quasi-ideals. 6313: Eine Charakterisierung der primitiven Ideale eines Rings.
- Steinig, John. 5167: Sur les changements de signe du reste dans l'évaluation asymptotique de certaines fonctions arithmétiques.
- Stel'mašuk, N. T. 3189: Generalized solutions of certain linear differential systems in partial derivatives of first order.
- Stender, P. V. 2879: (with Tartakovskii, V. A.) On the word problem in semigroups.
- Stenger, William. 3384: On the variational principles for eigenvalues for a class of unbounded operators.
- Stengle, Gilbert. 970: A divergence theorem for Gaussian stochastic process expectations.
- Stenström, Bo. 5271: Purity in functor categories.
- Stepanec, A. I. See Stepanec, O. I.
- Stepanec, O. I. 656: (with Poljakov, R. V.) The approximation of continuous functions by algebraic polynomials. 657: (with Poljakov, R. V.) The approximation of continuous functions by ordinary polynomials. 6648: (with Poljakov, R. V.) The approximation of quasismooth functions by ordinary polynomials.
- Štěpánek, Jiří. 4242: Generalization of the Taylor and Laurent expansion.
- Štěpánek, Petr. 6218: Generators of the Boolean algebra of regular open sets in linear metric spaces. 1250: (with Vopěnka, Petr) Decomposition of metric spaces into nowhere dense sets.
- Stephani, Irmtraud. 4572: Eine Ergänzung zu einem Lemma von Nachbin.

- Stephens, M. A. 3710: (with Maag, Urs R.) The  $V_{NM}$  two-sample test.
- Stephens, N. M. 5225: The diophantine equation  $X^3 + Y^3 = DZ^3$  and the conjectures of Birch and Swinnerton-Dyer.
- Stephenson, R. M., Jr. 3337: Spaces for which the Stone-Weierstrass theorem holds. 3522: (with Scarborough, C. T.) Minimal topologies.
- Sterling, Nicholas J. 2825: Rings satisfying  $(x, y, z) = (y, z, x)$ .
- Stern, A. I. 4203: Completely irreducible representations of  $SU(2, 1)$ .
- Sternberg, Eli. 2490: (with Turteltaub, M. J.) On concentrated loads and Green's functions in elastostatics.
- Sternberg, Shlomo. 2912: (with Loomis, Lynn H.) ★Advanced calculus.
- Sternheimer, D. 2499: (with Flato, M.) Local representations and mass spectrum. 6077: (with Flato, Moshé) Remarques sur les automorphismes causaux de l'espace-temps.
- Stetter, Franz. 2449: On a generalization of the midpoint rule. 3761: Ableitungsfreie Schranken für die numerische Integration. 3762: Optimale Runge-Kutta-Verfahren der Ordnung 2 und 3. 3763: Error bounds for Gauss-Chebyshev quadrature.
- Stetter, H. J. 6009: Richardson-extrapolation and optimal estimation.
- Steutel, F. W. 4851: A class of infinitely divisible mixtures.
- Stewart, B. M. 6232: ★Theory of numbers.
- Stewart, D. G. 3547: A note on a cellularity theorem by Doyle.
- Stewart, K. L. See Polozil, G. M., #6043.
- Stewartson, K. 4519: On an integral equation.
- Stiklakis, L. See Stiklakis, L.
- Stiklakis, L. 4731: Hypersurfaces of a bilinear-metric projective space.
- Stiles, W. J. 4573: A remark on the intersection of shells.
- Stingl, Peter. 1141: (with Mathiak, Karl) ★Gruppentheorie für Chemiker, Physiko-Chemiker, Mineralogen.
- Stipanović, E. 16: The linear continuum of R. J. Boscovich.
- Stippes, Marvin. 459: A representation theorem for biharmonic functions.
- Stocks, D. R., Jr. 2621: Lattice paths in  $E^3$  with diagonal steps.
- Stoddard, A. W. J. 2072: Inequalities for convex functions.
- Stoer, Josef. 1869: Über die Existenz linearer Approximationsoperatoren. 7115: (with Andelić, T. P.; Aumann, G.; Bauer, F. L.; Bulirsch, R.; Künzi, H. P.; Rutishauser, H.; Samelson, K. and Sauer, R.) ★Mathematische Hilfsmittel des Ingenieurs. Teil III.
- Stojanov, N. V. See Stojanov, N. V.
- Stojanov, N. V. 3855: Stabilizing a nonlinear controlled system for steady-state motions in the critical case of a double zero root.
- Stoka, Marius I. 6891: ★Géométrie intégrale.
- Štokalo, I. Z. See Mitropol'skii, Ju. O.; Paraszuk, O. S. and Bogoljubov, A. N., #3899 and History of national mathematics in four volumes. Vol. II. 1801-1917. #3888.
- Stoll, Wilhelm. 467: The fiber integral is constant.
- Stolzberg, Gabriel. 201: Constructive normalization of an algebraic variety.
- Stone, Charles J. 4887: Application of unsmoothing and Fourier analysis to random walks. 6996: On a theorem by Dobrushin. 7008: Infinite particle systems and multi-dimensional renewal theory. 2327: (with Port, Sidney C.) Hitting times for transient random walks on groups.
- Stone, Mervyn. 2367: Generalized Bayes decision functions, admissibility and the exponential family. 7056: Extreme tail probabilities for the null distribution of the two-sample Wilcoxon statistic.
- Stonehewer, S. E. 5300: Some finiteness conditions in locally soluble groups. 5280: (with Hartley, B.) On some questions of P. Hall concerning simple, generalized soluble groups.
- Stoneman, David M. 1036: (with Draper, Norman R.) Response surface designs for factors at two and three levels and at two and four levels.
- Stong, R. E. 2240: (with Smith, Larry) The structure of  $BSC$ . 2241: (with Smith, Larry) Exotic cobordism theories associated with classical groups.
- Stoničik, A. A. 7110: A method for the approximate solution of Fredholm integral equations.
- Storer, Thomas. 5184: A note on the arithmetic structure of the integers modulo  $N$ .
- Storey, S. H. 946: (with Roberts, F. D. K.) A three-dimensional cluster problem.
- Stormer, Erling. 773: Types of von Neumann algebras associated with extremal invariant states. 2012: Large groups of automorphisms of  $C^*$ -algebras. 2013: On partially ordered vector spaces and their duals, with applications to simplexes and  $C^*$ -algebras.
- Storoženko, É. A. 3260: Approximation by linear methods of summation of orthogonal series.
- Storrier, Hans Heiner. 5272: Sur les épimorphismes dans la catégorie des anneaux commutatifs. 5273: Épimorphismes d'anneaux et anneaux des fractions.
- Stoss, Hanns-Jörg. 7094: Ein Verfahren zur Berechnung des charakteristischen Exponenten der Differentialgleichung  $y'' + (\lambda + 2\lambda_1 \cos x + 2\lambda_2 \cos 2x)y = 0$ .
- Stout, E. L. 6447: A generalization of a theorem of Radó.
- Stovall, E. J., Jr. 2452: (with Lewis, H. R., Jr.) Comments on a floating-point version of Nordsieck's scheme for the numerical integration of differential equations.
- Strahov, V. N. 4521: The numerical solution of incorrect problems representable by convolution type integral equations. 3371: (with Bakusinskii, A. B.) The solution of certain integral equations of the first kind by the method of successive approximations.
- Strakhov, Nicholas A. 5928: (with Kurz, Ludwik) An upper bound on the zero-crossing distribution.
- Strambach, Karl. 820: (with Schleiermacher, Adolf) Über die Gruppe der Projektivitäten in nichtgeschlossenen Ebenen.
- Strang, Gilbert. 4226: The nucleus of a set.
- Stratonović, R. L. 3869: The maximum principle and statistical optimal control problems.
- Stratton, Howard H., Jr. 2310: On dimension of support for stochastic processes with independent increments.
- Straumann, N. 3819: Application of current algebras.
- Štraus, A. V. 788: Extensions and characteristic function of a symmetric operator.
- Straus, E. G. 2068: (with Erdős, Paul) Über eine geometrische Frage von Fejes-Tóth.
- Strauss, Aaron. 1673: A note on a global existence result of R. Conti. 1720: (with Kato, Junji) On the global existence of solutions and Liapunov functions. 6555: (with Yorke, James A.) Perturbing asymptotically stable differential equations.
- Strauss, Dona Papert. See Papert Strauss, Dona.
- Streeter, R. F. 3527: The Heisenberg ferromagnet as a quantum field theory. 6088: On certain non-relativistic quantized fields.
- Streibl, Kurt. 407: On quadratic differentials with closed trajectories and second order poles.
- Streikeisen, Paul Theophil. 4093: ★Die Konvergenz der Abschnittsinversen von speziellen unendlichen Matrizen.
- Strecker, G. E. 6912: (with Wattel, E.; Herrlich, H. and de Groot, J.) Strengthening Alexander's subbase theorem.
- Strichartz, Robert S. 6747: Sobolev inequalities and extension theorems for functions with certain  $L^p$ -derivatives.
- Stromberg, Karl. 6693: Large families of singular measures having absolutely continuous convolution squares.
- Stroock, D. W. 4277: A mini-max theorem in classical potential theory. 4881: Penetration times and passage times.
- Stroud, A. H. 3764: Integration formulas and orthogonal polynomials. 3765: (with Goit, Edward H., Jr.) Some extensions of integration formulas.
- Struble, R. A. 6558: (with Cooke, C. H.) Perturbations of normal mode vibrations.
- Styrgin, V. V. 1741: (with Krasnosel'skii, M. A. and Lifšic, E. A.) A new method in the problem of periodic solutions of equations with deviating argument.
- Stuart, Alan. 999: (with Kendall, Maurice G.) ★The advanced theory of statistics. Vol. 3: Design and analysis, and time-series.
- Studden, W. J. 7050: Optimal designs on Tehebycheff points.
- Studnev, Ju. P. 2303: Some generalizations of limit theorems in probability theory.
- Stupjalis, L. 615: (with Ladyženskaja, O. A.) Letter to the editors.
- Stuth, C. J. 1498: Inner endomorphisms of semigroups.
- Styles, Carolyn C. 182: On evaluating certain coefficients.
- Styplinski, Z. 3345: Steklov means in Orlicz spaces. 4598: On Orlicz spaces with mixed norms. I. Inequalities for trigonometric polynomials.
- Suarez, Francisco Poyatos. See Poyatos Suarez, Francisco.



- Subbarao, M. V. 1331: A class of additive functions.
- Subba Rao, S. 2338: Queuing with balking and reneging in  $M|G|1$  systems.
- Subbotin, A. I. 3850: On the problem of the game-interception of motions. 6115: Regularization of a certain problem on the contact of motions.
- Subbotin, Ju. N. 4471: (with Taikov, L. V.) Best approximation of a differentiation operator in the space  $L_2$ .
- Subert, Bruno. 5977: An asymptotically optimal decision procedure.
- Subramanian, H. 4660: The structure space of a ring.
- Succi, Francesco. 3468: Il teorema di de Rham olomorfo nel caso relativo. I. 6860: Alcune osservazioni sui teoremi di de Rham.
- Sucheston, Louis. 740: Banach limits.
- Sucl, I. 4671: On the semi-groups of isometries.
- Sučkov, V. A. 2497: Double waves of a plane potential flow of a polytropic gas.
- Sudan, G. 2696: (with Bucur, C. D.) Sur un problème de Barbour et Brun.
- Sudarshan, E. C. G. 7144: (with Klauder, John R.) ★ Fundamentals of quantum optics. 5908: (with Kuriyan, Jacob G. and Mukunda, N.) Master analytic representations and unified representation theory of certain orthogonal and pseudo-orthogonal groups.
- Suetin, P. K. 2957: Order comparison of various norms of polynomials in a complex region.
- Sugano, Kozo. 1412: Note on semisimple extensions and separable extensions.
- Suglura, Mitsuo. 4202: (with Iwahori, Nagayoshi) A duality theorem for homogeneous manifolds of compact Lie groups.
- Sugrin, S. M. 4969: Difference schemes for symmetric differential equations.
- Suh, Tae-il. 2821: Equationally complete non-associative algebras.
- Suhorutičenko, V. V. 3181: (with Agranovič, M. S.) The necessity of the algebraic parabolicity conditions of nonstationary problems.
- Sulanke, R. 4846: (with Rényi, A.) Zufällige konvexe Polygone in einem Ringgebiet.
- Sul'din, A. V. 3766: Cubature formulas based on the ergodic theorem.
- Sultanova, D. H. 2339: Some asymptotic problems for a queue with prophylaxis and renewal.
- Sundaresan, K. 3341: (with Mizel, V. J.) Representation of additive and biadditive functionals.
- Sunkov, V. P. 6360: A certain generalization of Frobenius' theorem to periodic groups. 6368: The problem of minimality for subgroups in locally finite groups.
- Suneuchi, Gen-ichirō. 694: On the Littlewood-Paley function  $\rho^*$  of multiple Fourier integrals and Hankel multiplier transformations. 6666: Strong approximation by Fourier series and orthogonal series.
- Suppes, Patrick. 4699: (with Moler, Nancy) Quantifier-free axioms for constructive plane geometry.
- Suprunenko, D. A. 1457: Irreducible parts of a reducible maximal locally nilpotent matrix group.
- Su Pu-ch'ing. 3453: A characterization of a Euclidean metric as a Minkowski metric.
- Šur, M. G. 5939: The Martin boundary for a certain class of Markov processes.
- Surendran, P. U. 2383: Common treatments between blocks of certain partially balanced incomplete block designs.
- Surma, Stanisław. 1228: On the relation of formal inference and some related concepts.
- Suryanarayana, P. 554: The higher order differentiability of solutions of abstract evolution equations.
- Suibaev, S. 683: (with Nagmetžanov, K.) A generalized complete orthonormal system in the space  $L_2[0, 1]$ .
- Süss, Wilhelm. See Gericke, Helmuth, #2566.
- Šutov, E. G. 241: Some imbeddings of rings.
- Suvorčenkova, G. A. 6782: (with Levitan, B. M.) Sufficient conditions for discreteness of the spectrum of a Sturm-Liouville equation with operator coefficient.
- Suvorov, G. D. 2953: (with Gallo, V. F.) Monogeneity sets of differentiable plane ring mappings.
- Suzikov, G. V. 6615: (with Hruslov, E. Ja.) An averaged boundary condition for a diffusion problem in a region with piecewise semi-permeable boundary. 7135: (with Hruslov, E. Ja.) The passage of sound waves across thin channels in a reflecting layer.
- Suzuki, Giitiro. 7057: Kolmogorov-Smirnov tests of fit based on some general bounds.
- Suzuki, Kazuo. 4206: On the character ring of representations of a compact group.
- Suzuki, Masaaki. 4286: Note on Hartogs domains.
- Suzuki, Michio. 1465: A characterization of the simple groups  $PSL(2, q)$ .
- Suzuki, Satoshi. 2746: On the flatness of complete formally projective modules.
- Suzuki, Yasutaka. 2806: On automorphisms of an injective module.
- Suzuki, Yoshindo. 1240: Applications of the theory of  $\beta$ -models.
- Suzuki, Yoshiya. 667: Saturation of local approximation by linear positive operators of Bernstein type. 6637: (with Ikeno, Kyuhei) Some remarks of saturation problem in the local approximation.
- Suzuki, Yukio. 2364: On testing certain hypotheses.
- Šval, A. I. See Šval, O. I.
- Šval, O. I. 1626: The divergence in a closed disc of a certain interpolation process. 3017: †Improvement of the order of approximation of functions defined in regions with corners, in neighborhoods of corner points.
- Švec, Alois. 2270: Deformation of surfaces in homogeneous 3-spaces. 4746: Cartan's method of specialization of frames. 6548: A curve in the affine complex plane.
- Švec, Marko. 4330: Some oscillatory properties of second order non linear differential equations.
- Svirčevskij, A. A. 632: (with Kuks, L. M.) Theorems in the qualitative theory of partial difference equations.
- Swan, Richard G. 323: Generators and relations for certain special linear groups.
- Swanson, C. A. 482: (with Headley, V. B.) An extension of Airy's equation.
- Swanson, J. W. 7223: A variant of Turing machines requiring print instructions only.
- Swarup, Kantil. 7175: Duality for transportation problem in fractional programming. 5028: (with Sinha, S. M.) Mathematical programming: A survey.
- Sweedler, Moss Eisenberg. 283: Cohomology of algebras over Hopf algebras.
- Sweeney, W. J. 578: "The  $\delta$ -Poincaré estimate". 2250: The D-Neumann problem. 3587: A noncompact Dirichlet norm.
- Swenson, Eva V. 2461: Geometry of the complex characteristics in transonic flow.
- Świerczkowski, S. 6354: Abstract kernels and cohomology.
- Swift, Jonathan Dean. 6196: Quasi-Steiner systems.
- Swinerton-Dyer, H. P. F. 2685:  $A^4 + B^4 = C^4 + D^4$  revisited. 6287: The conjectures of Birch and Swinerton-Dyer, and of Tate.
- Sysoeva, F. A. 2926: A generalization of a certain Hilbert type inequality.
- Szabados, J. 659: Rational approximation in certain classes of functions. 5573: (with Kis, O.) Remarks on the convergence of Lagrange interpolation.
- Szabó, I. See Andelić, T. P.; Aumann, G.; Bauer, F. L.; Bulirsch, R.; Kunzi, H. P.; Rutishauser, H.; Samelson, K.; Sauer, R. and Stoer, J., #7115.
- Szabó, J. 814: Eine Verallgemeinerung des Eckhartschen Einschnideverfahrens.
- Szadkowski, J. 3146: Generalization of certain criterion of oscillatory property for systems with  $n$  degrees of freedom.
- Szajcz, Sándor. 4611: (with Dobó, Andor) The application of the Mikusiński operational calculus to the approximate solution of  $n$ th order linear inhomogeneous differential equations with variable coefficients.
- Szász, D. 7007: On the general branching process with continuous time-parameter.
- Szász, F. 244: The sharpening of a result concerning primitive ideals of an associative ring. 2812: Einige Kriterien für die Existenz des Einselementes in einem Ring.
- Szász-Felten, Irmgard. 5679: Über den Absolutbetrag von Operatoren in einem vektoriiellen  $L^1$ -Raum.
- Szegő, Gabor. 6509: An outline of the history of orthogonal polynomials.
- Szegő, George P. 6548: (with Bhatia, Nam P.) An extension theorem for asymptotic stability and its application to a control problem.

- 6556: An application of the extension theorem to a control problem.  
 3131: (with Olech, C. and Cellina, A.) On the stability properties of a third order system.
- Szekeres, G. 6098: Kinematic geometry: An axiomatic system for Minkowski space-time. 1631: (with Gibson, J. K.) Analytic matrix functions.
- Szemerédi, E. 183: (with Erdős, P. and Sárközy, A.) On the solvability of certain equations in sequences of positive upper logarithmic density. 2716: (with Erdős, P. and Sárközy, András) The solvability of certain equations in dense sequences of integers. 2717: (with Erdős, P. and Sárközy, A.) On the divisibility properties of sequences of integers. II.
- Szilágyi, M. 875: (with Maurer, I. Gy.) Über gewisse Topologien, die in der Menge der eindeutigen Abbildungen einer Menge in eine Operatorgruppe definiert sind. 1513: (with Maurer, I. Gy.) Über ein unendliches Produkt von geordneten Systemen beliebiger Mächtigkeit in Operatorgruppen mit Untergruppentopologie. 6362: (with Maurer, I. Gy.) On the convergence of infinite products defined in the rings of endomorphisms of an abelian group.
- Salenk, W. 3327: The non-existence of a separable reflexive Banach space universal for all separable reflexive Banach spaces.
- Sz. Nagy, Béla. 778: (with Foias, Ciprian) ★Analyse harmonique des opérateurs de l'espace de Hilbert.
- Spiro, Lucien. See Anneaux de Gorenstein, et torsion en algèbre commutative, #1435.
- Szász, P. 144: Once more the Brauer-Rademacher identity. 1336: On Kuzmin's theorem. II. 6248: On the metric theory of continued fractions.
- Szybiak, Andrzej. 2114: Lowering the class of a geometric object.
- Szygenda, Stephen A. 2851: (with Spitznagel, Edward L., Jr.) A computer study of the orders of finite simple groups.
- Szysal, Dominik. 957: Extension des théorèmes de A. Kolmogoroff et H. Brunk concernant la loi forte des grands nombres. 959: Erratum: "Extension des théorèmes de A. Kolmogoroff et H. Brunk concernant la loi forte des grands nombres". 6982: Certaines inégalités du type de P. Lévy et leurs applications.
- Taam, C. T. 3224: Nonlinear differential equations in Banach spaces, and applications.
- Tabarrok, B. 1118: (with Simpson, A.) On Kron's eigenvalue procedure and related methods of frequency analysis.
- Taft, Earl J. 5257: Some remarks on invariant substructures of associative algebras.
- Taguchi, Tokio. 5966: Concentration-curve methods and structures of skew populations: A methodology for the analysis of economic data.
- Tai, Shin-sheng. 6950: Minimum imbeddings of compact symmetric spaces of rank one.
- Tableson, Mitchell. 1984: Harmonic analysis on  $n$ -dimensional vector spaces over local fields. I. Basic results on fractional integration.
- Talclin, M. A. 99: Some further examples of undecidable theories. 330: On the isomorphism problem for commutative semigroups. 2878: Algorithmic problems for commutative semigroups.
- Tal'kov, L. V. 4471: (with Subbotin, Ju. N.) Best approximation of a differentiation operator in the space  $L_2$ .
- Talmanov, A. D. 2591: Automorphisms of an algebra having one unary operation in the signature. 6173: Systems with a solvable universal theory. 19: (with Aleksandrov, P. S.; Eršov, Ju. L.; Kargaplov, M. I.; Kuz'min, E. N.; Smirnov, D. M. and Širšov, A. I.) Anatolii Ivanovič Mal'cev: Obituary.
- Takács, Lajos. 2340: On dams of finite capacity.
- Takagi, Hitoshi. 2152: (with Sawaki, Sumio) On certain conditions for a  $K$ -space to be isometric to a sphere.
- Takahashi, Hiromitsu. 5119: (with Shirakawa, Isao and Ozaki, Hiroshi) On the planar decomposition of a complete bipartite graph.
- Takahashi, Ken-ichi. 3144: A note on the PLK-method.
- Takahashi, Masahiro. 5357: Integration with respect to the generalized measure. III, IV.
- Takahashi, Moto-o. 39: Many-valued logics of extended Gentzen style. I. 2599: On incomparable cardinals. 2603: Ackermann's model and recursive predicates.
- Takahashi, Reiji. 6389: Über  $p$ -adische Kugelfunktionen und unitäre Darstellungen der Modulargruppen.
- Takahashi, Shuichi. 195: Generation of Galois extensions by matrix roots.
- Takahasi, Ken-iti. See Takahashi, Ken-ichi.
- Takahasi, Koiti. 2329: (with Shimura, Toshio) On the moments and the examples of the distribution of the time to extinction in the Galton-Watson process. 3727: (with Wakimoto, Kazumasa) On unbiased estimates of the population mean based on the sample stratified by means of ordering.
- Takamatsu, Kichiro. 4758: On a decomposition of an extended contravariant almost analytic vector in a compact  $K$ -space with constant scalar curvature.
- Takemura, Yasuji. 5334: (with Satō, Tokui) Sur les suites filtrantes de nombres.
- Takesaki, Masamichi. 774: Covariant representations of  $C^*$ -algebras and their locally compact automorphism groups.
- Takeuchi, Kisao. 157: A remark on the Riemann-Roch-Weil theorem.
- Talaljan, A. A. 4469: Systems with respect to which series represent arbitrary measurable functions.
- Talenti, Giorgio. 1537: Sopra una disuguaglianza integrale. 1781: Problemi di derivata obliqua per equazioni ellittiche in due variabili. 1944: Osservazioni sopra un'equazione integrodifferenziale di Schrödinger. 6605: Problemi di derivata obliqua per equazioni ellittiche in due variabili.
- Tallini, Giuseppe. See Segre, Beniamino, #4700b.
- Tallis, G. M. 2363: (with Light, R.) The use of fractional moments for estimating the parameters of a mixed exponential distribution.
- Tamaschke, Olaf. 331: An extension of group theory to  $S$ -semigroups. 5286: A generalization of conjugacy in groups.
- Tamássy, Lajos. 6863: Concerning the equivalence of spaces with tensor connection and the theory of curvature.
- Tammeste, R. 1195: The evaluation of distribution entropy with the aid of moments.
- Tamrazov, P. M. 4271: (with Lebedev, N. A.) Inverse approximation theorems on closed sets of the complex plane.
- Tamura, Ichiro. See Tamura, Itiro.
- Tamura, Itiro. 924: †Classification of  $(n-1)$ -connected differentiable manifolds of dimension  $2n+1$ . 5892: On the classification of sufficiently connected manifolds.
- Tamura, Ryeji. 4924: Some distribution-free multiple comparison procedures.
- Tamura, Takayuki. 4192: Notes on groupoids and their automorphism groups. 4193: Maximal or greatest homomorphic images of given type. 4194: Errata: "The theory of operations on binary relations". 6222: Construction of trees and commutative archimedean semigroups. 1499: (with Shafer, J.) Power semigroups.
- Tan, Wai-yuan. 1011: On the lower bounds for the variances of estimators in the sampling theory framework.
- Tanaka, Hiroshi. 3664: Local solutions of stochastic differential equations associated with certain quasilinear parabolic equations. 4282: (with Yosida, Kôzoku and Watanabe, Takeshi) On the closedness of the potential operator.
- Tanaka, Hisao. 3926: Some results in the effective descriptive set theory.
- Tanaka, Shôtarô. 2573: Axiom systems of Aristotle traditional logic. IV. 2574: On axioms of ontology. 2575: On theorems of ontology.
- Tanaka, Shun'ichi. 5311: Irreducible representations of the binary modular congruence groups mod  $p^4$ .
- Tănăsescu, A. 2535: (with Theodorescu, R.) Graphische Lösung der Matrizialspele von der Größenordnung  $3 \times n$ .
- Tandai, Kwoichi. 4741: On connections of geometric structures.
- Tandori, K. 6641: Abschätzungen vom Menchoff-Rademacherschen Typ für die Summen von orthogonalen Funktionen. 6679: Bemerkung zur starken Summation der Fourierreihen.
- Tang, G. S. 260: (with Teh, H. H.) A remark on the relation between groupoid semirings and matrix semirings.
- Tangora, Martin C. 2223: (with Mosher, Robert E.) ★Cohomology operations and applications in homotopy theory.
- Tani, Mariko. 5824: On hypersurfaces with constant  $k$ -th mean curvature.
- Tanno, Shôkichi. 861: Locally symmetric  $K$ -contact Riemannian manifolds.

- Tarakanov, V. E. 6201: Correlations of maximal depths of classes of square (0, 1)-matrices for different parameters.
- Tarasov, B. V. 2794: On free associative algebras.
- Tarasov, V. A. 3179: Estimate of the maximum of the modulus of bounded generalized solutions of second order quasilinear elliptic equations in an unbounded region with principal part in divergence form. 6509: A priori weighted estimates of solutions of the Dirichlet problem for quasilinear elliptic equations in an unbounded region. 6590: Weighted estimates of the maximum of the absolute value and of Hölder's constant of generalized solutions of quasilinear elliptic equations in an unbounded region.
- Targhetta, Maria Luisa. 2105: Alcune conseguenze di una rappresentazione di Weierstrass delle superficie di area minima. 2668: Costruzione e computo delle partizioni di un numero naturale. 4857: Serie stocastiche. 5146: Sulla divergenza della serie dei reciproci dei numeri primi.
- Tartakovskii, V. A. 2879: (with Stender, P. V.) On the word problem in semigroups.
- Tarter, M. 7023: (with Kronmal, R.) The estimation of probability densities and cumulatives by Fourier series methods.
- Tasaka, Takashi. 2764: Sur les groupes algébriques semi-simples déployés.
- Tate, John T. 1371: Algebraic cycles and poles of zeta functions. 2756: Residues of differentials on curves.
- Taton, René. 5080: Pierre Sergescu, artisan de la collaboration internationale en histoire des sciences.
- Täuber, Josef. 4754: Über Frenet-Polynome die einer Weltlinie beigelegt sind.
- Taufer, Jiff. 2458: On factorization method. 7095: Faktorisierungsmethode für ein Randwertproblem eines linearen Systems von Differentialgleichungen. 7096: Faktorisierungsmethode für ein Eigenwertproblem eines linearen Systems von Differentialgleichungen. 7097: Faktorisierungsmethode für ein Randwertproblem eines nichtlinearen Systems von Differentialgleichungen.
- Tausky, Olga. 2784: The factorization of the adjugate of a finite matrix. 2785: Positive-definite matrices and their role in the study of the characteristic roots of general matrices. 4053: The discriminant matrices of an algebraic number field. 6298: On stable matrices.
- Tăutu, P. 2538: (with Fireescu, D.) A simple stochastic model of growth of populations heterogeneous by marker characters.
- Tavanez, P. V. 48: (with Smirnova, E. D.) Semantics in logic.
- Taylor, B. A. 1647: (with Rubel, L. A.) Uniqueness theorems for analytic functions of one and of several complex variables.
- Taylor, Donald Curtis. 2003: A characterization of Banach algebras with approximate unit.
- Taylor, Gerald D. 3385: Spectra of multipliers on  $D_n$ . 1074: (with Moursund, D. G.) Optimal starting values for the Newton-Raphson calculation of inverses of certain functions.
- Taylor, J. C. 745: The Šilov boundary for a lattice-ordered semigroup.
- Taylor, Michael E. 6090: Fourier series on compact Lie groups.
- Taylor, N. W. 5922: Some conformally separable metrics in flat space and their application to accelerated co-ordinate frameworks in special relativity.
- Teh, H. H. 111: On a class of distributive lattice orders. 2631: A fundamental theorem concerning the chromatic number of a group graph. 94: (with Ang, S. L.) Finite homogeneous auto-extensions of graphs. 3503: (with Liaw, S. K.) Embedding a  $T_1$  space in a  $T_1$  group space. 96: (with Loh, H. T.) On the dimension of product graphs. 239: (with Loh, H. T.) Some theorems of groupoid semirings. 95: (with Ng, C. P.) On finite graphs of diameter 2. 260: (with Tang, G. S.) A remark on the relation between groupoid semirings and matrix semirings.
- Tejumola, H. O. 3107: On the convergence of solutions of certain third-order differential equations.
- Teleman, C. 1524: On the principal series of unitary representations of the group  $SGL(n, C)$ . 2215: ★Elements of topology and differentiable manifolds. 5814: On spaces with constant affine and locally euclidean connection. 805: (with Vranceanu, Gh.) ★Euclidean geometry, non-euclidean geometries, theory of relativity.
- Teleman, K. See Teleman, C.
- Teleman, Silviu. 6733: La représentation des automorphismes des réseaux vectoriels.
- Telgarsky, Rastislav. 3515: (with Duda, Roman) On some covering properties of metric spaces.
- Teller, J. Roger. 120: A theorem on Riesz groups.
- Telser, Lester G. 3842: (with Graves, Robert L.) An infinite-horizon discrete-time quadratic program as applied to a monopoly problem.
- Temam, Roger. 5727a: Sur l'approximation semi-discrète de la solution d'équations d'évolution linéaires par la méthode des pas fractionnaires. 5727b: Sur l'approximation discrète de la solution d'équations d'évolution linéaires par la méthode des pas fractionnaires. 5727c: Sur l'approximation semi-discrète de la solution d'équations d'évolution non linéaires par la méthode des pas fractionnaires.
- Temes, G. C. 7218: (with Smith, B. R.) An iterative approximation procedure for automatic filter synthesis.
- Tempelman, A. A. See Tempelmanas, A.
- Tempelmanas, A. 5926: (with Mirskaja, T. I. and Pabedinskaite, A. S.) Hilbert spaces of certain reproducing kernels and the equivalence of Gaussian measures.
- Temperley, H. N. V. 6213: (with Nagle, J. F.) Combinatorial theorem for graphs on a lattice.
- Tennenbaum, S. 55: Souslin's problem.
- Tennison, R. L. 826: An almost-measure of asymmetry.
- Teodorescu, P. P. 5413: On harmonic and biharmonic polynomials.
- Tepin, A. L. 1823: Conditions of validity of Čaplygin's theorem for elliptic difference equations. 2467: On the question of the applicability of the maximum principle to an elliptic difference equation. 7108: A difference analogue of Mikusiński's theorem and its application.
- Terehin, M. T. 514: Periodic solutions of a certain nonautonomous system of differential equations. 1711: Rotation of a direction field and the problem of finding limit cycles. 1712: Periodic solutions and contact curves. 1713: Periodic solutions of the differential equation  $p' = f(p, q)$ . 3904: Determination of the critical value of a parameter for the equation of motion of a pendulum.
- Teren'ev, I. A. 2897: (with Novožilov, Ju. V.) ★Unitary representations of the generalized Poincaré groups.
- Terpigoreva, V. M. 427: The form and properties of extremal functions in some linear and nonlinear extremal problems.
- Tessier, Françoise. 6570: Stabilité des singularités d'un système différentiel linéaire à argument retardé.
- Tetrușvili, M. R. 4149: The set of solutions of certain equations in an uncountable group. 5907: Measures of Haar type which are not invariant with respect to the symmetry of a group.
- Teugels, Jozef L. 5952: Renewal theorems when the first or the second moment is infinite. 7009: Exponential decay in renewal theorems.
- Teut, O. M. 591: The Cauchy problem for a system of hyperbolic type.
- Tewarson, R. P. 2425: Solution of linear equations with coefficient matrix in band form.
- Thacher, Henry C., Jr. 2410: (with Cody, W. J.) Rational Chebyshev approximations for the exponential integral  $E_1(x)$ .
- Thatcher, J. W. 75: (with Wright, J. B.) Generalized finite automata theory with an application to a decision problem of second-order logic.
- Thedén, Torbjörn. 988: Convergence and invariance questions for point systems in  $R_1$  under random motion. 989: On stochastic stationarity of renewal processes.
- Thedy, Armin. 2827: Mutationen und polarisierte Fundamentalformel. 2890: (with Hansen-Schmidt, Uwe) Über alternative Gruppoide, deren Zentrum alle Quadrate enthält.
- Theil, E. H. 6624: (with Kreith, K.) A criterion for nondiscrete lower spectra.
- Theil, Henri. 1031: A simplification of the BLUS procedure for analyzing regression disturbances.
- Theodorescu, R. 2541: On the Monte-Carlo simulation of Bush-Mosteller stochastic models for learning. 2542: On Monte Carlo simulation of learning models of Bush-Mosteller type. 3652: On functional relations of multiple Markov processes. 6997: Ketten mit vollständigen Bindungen. 3547: (with Penkov, B.) Über die spieltheoretische Behandlung von Prüflänen. 2551: (with



- Simboan, Gabriel) Sur la liaison entre la fonction de concentration, la concentration, l'énergie informationnelle et l'entropie. 2535: (with Tânăsescu, A.) Graphische Lösung der Matrizialspele von der Größenordnung  $3 \times n$ . 4915: (with Văduva, I.) On multivariate optimal sampling inspection plans. 3605: (with Reischer, Corina and Simboan, Gabriel) ★Theory of probability.
- Thiele, Helmut. 6134: (with Fischer, Klaus and Lindner, Rolf) Stabile stochastische Automaten.
- Thierrin, G. 1198: Permutation automata. 4116: Quelques caractérisations du radical d'un anneau. 327: (with Dérédian, J.-C.) Demi-groupes séparateurs.
- Thoman, Darrel R. 7035: (with Bain, Lee J.) Some tests of hypotheses concerning the three-parameter Weibull distribution.
- Thomas, D. K. 4248: A note on starlike functions.
- Thomas, Donald H. 3740: (with Buchanan, John E.) On least-squares fitting of two-dimensional data with a special structure.
- Thomas, Emery. 926: On the existence of immersions and submersions. 4820: Submersions and immersions with codimension one or two. 4827: (with Frank, David) A generalization of the Steenrod-Whitehead vector field theorem.
- Thomas, Erik. 6431: Sur les mesures vectorielles à valeurs dans des espaces d'un type particulier. 6432: Sur le théorème d'Orlicz et un problème de M. Laurent Schwartz.
- Thomas, J. Pelham. 6901: Associated regular spaces.
- Thompson, A. H. 866: On second order recurrent space-times.
- Thompson, James R. 3681: Some shrinkage techniques for estimating the mean.
- Thompson, John G. 6367: Nonsolvable finite groups all of whose local subgroups are solvable.
- Thompson, R. C. 322: Commutators of matrices with prescribed determinant. 6299: On the matrices  $AB$  and  $BA$ . 4098: (with Gaines, Fergus J.) Sets of nearly triangular matrices.
- Thornton, M. C. 3573: On closing manifolds fibered over surfaces.
- Thosar, Yeshwant V. 6507: On certain expansions involving Legendre's  $Q$ -functions.
- Thron, W. J. 6446: (with Jones, William B.) Convergence of continued fractions. 4778 (with Reed, Ellen E.) Uniform structures on the lattices of open sets.
- Tiago de Oliveira, J. 5991: Optimality of grade correlation.
- Tiao, George C. 1019: (with Box, G. E. P.) A Bayesian approach to the importance of assumptions applied to the comparison of variances. 1020: (with Box, G. E. P.) A Bayesian approach to some outlier problems. 2369: (with Draper, N. R.) Bayesian analysis of linear models with two random components with special reference to the balanced incomplete block design. 2382: (with Guttman, Irwin) Analysis of outliers with adjusted residuals.
- van Tiel, J. 4550: (with van der Put, M.) Espaces nucléaires non archimédiens.
- Tietäväinen, Aimo. 1333: On pairs of additive equations.
- Tihomirov, N. B. 1860: The representation of certain summable functions by a singular integral at points of discontinuity of the second kind.
- Tihomirov, V. M. See Erohin, V. D., #3011.
- Tihomirov, V. R. 1398: A necessary and sufficient condition for the conversion of an arbitrary matrix into a Hermitian matrix as a result of a similarity transformation. 2511: Covariant form of the laws of conservation of vector flows in a Riemannian space.
- Timan, A. F. 4463: Some investigations in the theory of approximation of functions of a real variable.
- Timan, M. F. 677: Particular best approximations of functions, absolute convergence of Fourier series and nuclearity of Hilbert-Schmidt integral operators. 1627: The approximation of functions defined on the whole real axis by entire functions of exponential type. 4677: On a certain problem of S. G. Mihlin concerning the order of singular integrals at infinity.
- Timlake, William P. 3745: (with Lynn, M. Stuart) The use of multiple deflations in the numerical solution of singular systems of equations, with applications to potential theory.
- Tits, J. 309: Classification of algebraic semisimple groups. 6307: Formes quadratiques, groupes orthogonaux et algèbres de Clifford. 6396: (with Bruhat, F.) Groupes algébriques simples sur un corps local.
- Tivončuk, V. I. 2484: An estimate of the error in M. Picone's method of solving systems of nonlinear Volterra integral equations.
- Tiwari, Krishna. 284: The universal complex over an algebra. 295: Derivation modules and complexes over an algebra. 6277: On complete ring of quotients.
- Tjuren, I. S. 1870: A certain theorem of S. N. Bernštejn. 4574: The B-property and a certain criterion for the reflexivity of Banach spaces.
- Tjurin, A. N. 6285: (with Šafarevič, I. R.; Averbuh, B. G.; Vainberg, Ju. R.; Žiženko, A. B.; Manin, Ju. I.; Moisezon, B. G. and Tjurina, G. N.) ★Algebraische Flächen.
- Tjurina, G. N. 3053: The topological properties of isolated singularities of complex spaces of codimension one. 6285: (with Šafarevič, I. R.; Averbuh, B. G.; Vainberg, Ju. R.; Žiženko, A. B.; Manin, Ju. I.; Moisezon, B. G. and Tjurin, A. N.) ★Algebraische Flächen.
- Tkačenko, V. A. 4506: (with Ljubič, Ju. I.) A new proof of the fundamental theorem on functions periodic in the mean.
- Toda, Hiroshi. 5872: An important relation in homotopy groups of spheres. 5873: Extended  $p$ -th powers of complexes and applications to homotopy theory. 5878: (with Peterson, Franklin P.) On the structure of  $H^*(BSF; \mathbb{Z}_p)$ .
- Toda, Nobushige. 6457: Note sur l'ensemble d'adhérence fine des fonctions algébroides.
- Todd, John. 4937: Optimal ADI-Parameters. 6024: On condition numbers.
- Todorov, Pavel. 3000: On the theory of schlicht mappings by means of the meromorphic class  $\Phi$ . 5375: On the theory of univalent mappings.
- Toeplitz, Otto. 5065: (with Rademacher, Hans) ★Numbers and figures. Samples of mathematical reflections for those fond of mathematics.
- Tognoli, A. 928: Sulla classificazione dei fibrati analitici reali. 4823: Errata a: "Sulla classificazione dei fibrati analitici reali". 6961: Le varietà analitiche reali, come spazi omogenei. 927: (with Tomassini, G.) Teoremi d'immersione per gli spazi analitici reali.
- Tokad, Y. 7214: (with Koenig, H. E.) State models of systems of multi-terminal linear components.
- Tokarev, V. I. 4371: (with Valeev, K. G.) Application of the asymptotic method to differential equations with retarded argument.
- Tölke, Friedrich. 1653: ★Praktische Funktionenlehre. Vierter Band: Elliptische Integralgruppen und Jacobische elliptische Funktionen im Komplexen. 4292: ★Praktische Funktionenlehre. Fünfter Band: Allgemeine Weierstraßsche Funktionen und Ableitungen nach dem Parameter, Integrale der Theta-Funktionen und Bilinear-Entwicklungen.
- Tolle, Jon W. 3225: (with Harris, W. A., Jr.) A nonlinear functional equation.
- Tomáš, Josef. 4342: (with Tondl, Aleš) On the existence of subultra-harmonic resonance of a single-mass nonlinear system excited by periodic force.
- Tomášek, Stanislav. 4767: On a theorem of M. Katětov.
- Tomašević, F. V. 2767: (with Kurtjakov, S. U.) Expansion in terms of a non-orthogonal system of elements.
- Tomassini, G. 6402: Complessificazione di un gruppo di Lie reale. 927: (with Tognoli, A.) Teoremi d'immersione per gli spazi analitici reali.
- Tomastik, E. C. 1705: Oscillation of a nonlinear second order differential equation.
- Tom Dieck, Tammo. See tom Dieck, Tammo.
- Tomescu, Ioan. 1258: Sur un problème de partition avec un nombre minimal de classes.
- Tomilov, E. D. See Krulikovskii, N. N., #18.
- Tominaga, Hisao. 4126: (with Nagahara, Takasi) Algebraic extensions of simple rings. II. 4125: (with Nagahara, Takasi and Nakajima, Atsushi) Algebraic extensions of simple rings. I.
- Tomonaga, Yasurō. 935: Some properties of powers of manifolds. 2242: Index and cobordism.
- Tomuța, Floare Beana. 4450: Generalizations of some functional equations integrated by J. Aczél and O. E. Gheorghiu.
- Ton, Bul An. 1920: Nonlinear elliptic convolution equations of Wiener-Hopf type in a bounded region.
- Tondl, Aleš. 4342: (with Tomáš, Josef) On the existence of subultra-harmonic resonance of a single-mass nonlinear system excited by periodic force.

- Tonkov, E. L. 1709: (with Komlenko, Ju. V.) A periodic boundary value problem for an ordinary second order differential equation.
- Tonti, Enzo. 6808: Variational formulation for linear equations of mathematical physics.
- Topončarov, V. V. 5264: Sur l'inclusion d'une catégorie de trios dans une catégorie de quatuors associée.
- Topončarov, V. V. See Topončarov, V. V.
- Töpfer, H.-J. 5585: Tchebyscheff-Approximation und Austauschverfahren bei nicht erfüllter Haarscher Bedingung.
- Toponogov, V. A. 6874: The metric structure of Riemannian spaces with nonnegative curvature which contain straight lines.
- Toppila, Sakari. 2999: Some remarks on the value distribution of entire functions. 3003: Picard sets for meromorphic functions.
- Topping, David M. 6770: On linear combinations of special operators.
- Toraev, A. 3108: The oscillatoriness of solutions of a third order linear differential equation.
- Torelli, Giovanni. 4415: (with de Simon, Luciano) Soluzioni periodiche di equazioni a derivate parziali di tipo iperbolico non lineari.
- Torsan, Ilie. 5912: On distributions of discrete random variables.
- Tortrat, A. 2279: Structure des lois indéfiniment divisibles ( $\mu \in \mathcal{S} = \mathcal{S}(X)$ ) dans un espace vectoriel topologique (séparé)  $X$ . 6988: (with Blanc-Lapierre, André) Sur un problème de compensation de corrélations dans le cas de fonctions aléatoires ou de suites de variables aléatoires de second ordre.
- Toscans, Letterio. 811: Sugli assi e sui fuochi dell'ellisse di Steiner inscritta in un triangolo.
- Tougeron, Jean-Claude. 3601: Équivalence des idéaux de fonctions différentiables.
- Tovmasjan, N. E. 4404: A general boundary value problem for elliptic systems of second order differential equations.
- Tracy, Derrick S. 5972: Some rules for a combinatorial method for multiple products of generalized  $k$ -statistics.
- Traczyk, T. 3976: On Post algebras with uncountable chain of constants. Algebras of homomorphisms.
- Trahtenbrot, B. A. 3924: ★Algorithms and automatic computing machines. 7224: Normed signalizers for Turing computations.
- Trakhtenbrot, B. A. See Trahtenbrot, B. A.
- Trandafir, Rodica. 3459: Familles de courbes mesurables du plan euclidien. II. 4766: Problems of integral geometry of lattices in a Riemannian space  $V_2$  with constant curvature.
- Trapero, J. Bernardo Pena. See Pena Trapero, J. Bernardo.
- Trapp, H. W. 835: (with Pini, M.) Stationäre Krümmungsdichten auf Hyperflächen des euklidischen  $R_{n+1}$ .
- Traub, Roger D. 4798: Poincaré's conjecture is implied by a conjecture on free groups.
- Trautmann, Günther. 4288: Eine Bemerkung zur Struktur der kohärenten analytischen Garben. 4289: Abgeschlossenheit von Corandmoduln und Fortsetzbarkeit kohärenter analytischer Garben.
- Traylor, D. R. 6909: (with Younglove, J. N.) On normality and pointwise paracompactness.
- Treder, H.-J. 1148: (with Kreisel, E. and Liebcher, D.-E.) ★Zur Quantengeometrodynamik.
- Trench, William F. 1051: Weighting coefficients for the prediction of stationary time series from the finite past.
- Treskunov, A. L. 1757: Exact estimates in  $L_p$  for a certain class of second order degenerate equations of elliptic type.
- Trèves, François. 557: ★Linear partial differential equations with constant coefficients: Existence, approximation and regularity of solutions. 726: ★Topological vector spaces, distributions and kernels. 575: (with Zerner, Martin) Zones d'analyticité des solutions élémentaires.
- Triandaf, Ana. 5430: (with Ciobanu, Liviu; Poteraşu, Florin; Oprea, Arsenie and Berecivici, Malca) Nuove classi di funzioni spettanti ai sistemi funzionali alle derivate totali. I. Funzioni ipergeometriche generalizzate.
- Tricomi, F. G. See Schwarz, Ralph J., 2401 and Bradley, Lee C.; Aggarwal, H. R.; Ahlow, C. M.; Wood, Van E. and Glasser, M. L., #2395.
- Triebel, Hans. 625: Eigenwertverteilungen und Greensche Funktionen entarteter elliptischer Differentialoperatoren. 3198: Zur Spektraltheorie hypoelementarischer Differentialoperatoren. 4408: Über das Dirichletsche Problem für abzählbar unendliche quasilineare stark elliptische Differentialgleichungssysteme gerader Ordnung. 4594: Erzeugung des nuklearen lokalkonvexen Raumes  $C^*(\bar{\Omega})$  durch einen elliptischen Differentialoperator zweiter Ordnung. 4608: Über die Approximationszahlen der Einbettungsoperatoren  $J(B_{p,q}^s(\Omega) \rightarrow B_{p,q}^s(S))$ . 6748: Einige Einbettungssätze für Räume von Distributionen.
- Trigub, R. M. 3269: Several remarks on Fourier series.
- Tripathi, L. M. 4503: Absolute Nörlund summability factors of a Fourier series.
- Trnková, V. See Šedivá-Trnková, Věra.
- Troelstra, A. S. 26: The scientific work of A. Heyting. 2552: Finite and infinite in intuitionistic mathematics.
- Trojanski, Stanimir. 3245: Conditionally converging series and certain  $F$ -spaces.
- Trudinger, Neil S. 1758: Pointwise estimates and quasilinear parabolic equations. 1798: On Harnack type inequalities and their application to quasilinear elliptic equations.
- Truesdell, Clifford Ambrose. See Euler, Leonard, #1219.
- Truffault, Bernard. 6359: Sur le problème des mots pour les groupes de Greendlinger.
- Trybulec, A. 6905: (with Krakus, B.) A strongly convex and not contractible metric space.
- Trybusiowa, E. 7164: (with Kopociński, B.) Breakdown time distributions of systems in series.
- Tsagas, Grigoris. 2134: A Riemannian space with strictly positive sectional curvature.
- Tsai, Chester. 6336: The prime radical in a Jordan ring.
- Tsao, Chia Kuei. 6001: Admissibility and distribution of some probabilistic functions of discrete finite state Markov chains. 7036: Distribution of the product in random samples from a finite population.
- Tsokos, C. P. 522: (with Lakshmikantham, V.) Control systems and differential inequalities.
- Tsou, Hsi-shen. 6563: (with Higgins, Thomas J.) Generalized methods of the first-order approximation and of the refined first-order approximation for the analysis of nonlinear two-degree-of-freedom systems.
- Tsuchikawa, Masao. 2903: On the representations of  $SL(3, C)$ . I, II, III.
- Tsujikawa, Kunio. 767: (with Miyamoto, Munemi) A theorem on a multiplication operator in certain function spaces.
- Tsukamoto, Yôtarô. 2135: ★Curvature, geodesics and topological structures of Riemannian manifolds. 2153: On the topology of Kählerian spaces with negative holomorphic sectional curvature.
- Tsurumi, K. 1051: (with Kanemaru, T.) Boundary properties of analytic functions.
- Tsuzuki, Masanobu. 425: The spherical derivative of regular and meromorphic functions of bounded characteristic.
- Tucker, Howard G. 5920: Convolutions of distributions attracted to stable laws.
- Tucker, T. S. 6805: Leray-Schauder theorem for  $P$ -compact operators and its consequences.
- Tudor, Gh. 6630: (with Crstici, B.) Une formule de composition semi-groupe avec application au calcul de certaines intégrales impropres.
- Tugov, I. I. 6616: The  $P$ -separation of variables in the Schrödinger equation.
- Tulcea, A. Ionescu. See Ionescu Tulcea, A.
- Tulcea, Cassius Ionescu. See Ionescu Tulcea, Cassius.
- Tumarkin, G. C. 1616: (with Markušević, A. I. and Havinson, S. Ja.) The current status and problems of the theory of boundary properties of analytic functions.
- Tumura, Yosiro. 2375: The distributions of latent roots and vectors. 3667: On the steady state probabilities concerned with tandem queue.
- Tung Kuang-ch'ang. 1629: The Riemann-Hilbert problem for a multiply-connected region.
- Tupšlev, V. A. 1731: (with Vasil'eva, A. B.) Periodic solutions of systems of differential equations with a small parameter at the derivatives, close to discontinuous ones.
- Turán, P. 3074: To the analytical theory of algebraic equations. 5169: On a comparative theory of primes.
- Turbat, Christiane. 5546: Équation de Boltzmann sur la droite.
- Turčin, V. F. 3045: The choice of an ensemble of smooth functions in the solution of the inverse problem.
- Turčin, V. M. 5253: (with Drozd, Ju. A.) The number of modules of representations in genus for integral matrix rings of the second order.

- Turin, V. Ia. *See* Turin, V. Ja.
- Turin, V. Ja. 3132: Stability of solutions of a system of differential equations with discontinuous right-hand sides in the critical case.
- Turnbull, C. 7086: (with Manohar, R.) On a modification of Romberg quadrature.
- Turner, James. 3051: Generalized matrix functions and the graph isomorphism problem.
- Turovec', S. P. 4477: Best approximation in the mean of differentiable functions.
- Turowicz, Andrzej. 5372: ★Geometry of zeros of polynomials.
- Turri, Nedda Meregaglia. 5214: Questioni di realtà sulle corrispondenze algebriche reali simmetriche tra enti razionali semplicemente infiniti.
- Turteltaub, M. J. 2490: (with Sternberg, Eli) On concentrated loads and Green's functions in elastostatics.
- Tusnády, G. 636: On rearrangements of infinite series.
- Tutte, W. T. 2622: On even matroids.
- Tutublain, V. N. 2304: The approximation of probability measures in variation and products of random matrices.
- Tvaradze, S. V. 1350: (with Jakovlev, A. V.) Auxiliary problems in the theory of the imbedding of fields.
- Tweedie, M. C. K. 2354: (with Veevers, A.) The inversion of cumulant operators for power-series distributions, and the approximate stabilization of variance by transformations.
- Tyčinina, S. E. 3465: Stratifiable pairs of congruences of planes in  $P_5$ . 6853:  $T$  pairs of congruences of planes in  $P_5$ .
- Tzafriri, L. 2029: Quasi-similarity for spectral operators on Banach spaces.
- Tsachach, H. G. 2413: (with Künzi, Hans P. and Zehnder, C. A.) ★Numerical methods of mathematical optimization, with ALGOL and FORTRAN programs.
- Ucci, J. J. 917: On symmetric maps of spheres.
- Uchida, Kōji. 2838: Remarks on Grothendieck rings.
- Uchida, Minoru. 4896: (with Hori, Motoo) Correction to: "Application of the theory of Markov processes to commutation. I. The case of discrete time parameter".
- Uchiyama, Saburō. 179: On the representation of large even integers as sums of a prime and an almost prime. II.
- Udalov, A. S. 2109: Invariant rigging of surfaces in multi-dimensional projective space.
- Ulland, Ja. S. 1684: (with Belova, N. A.) The eigenfunction expansion of a singular boundary value problem for Legendre's equation.
- Ugulava, D. K. 5414: Estimates of harmonic polynomials in space.
- Uhl, J. J., Jr. 1985: Orlicz spaces of finitely additive set functions.
- Uhlmann, A. 3822: (with Lasner, G.) On positive functionals on algebras of test functions for quantum fields.
- Ullis, S. *See* Wilks, Samuel S.
- Ukidave, V. H. 1669: (with Rao, P. R. P.) Some separable forms of the Riccati equation.
- Ukšanović, Jovan B. 3607: Certain properties of the linear correlation coefficient.
- Ulam, S. M. 1964: (with Boyer, W. A.) Note on the visual hull of a set.
- Ulanov, M. P. 746: Vector-valued set functions and the representation of continuous linear mappings. 3328: Linear functionals on certain spaces of abstract functions.
- Ul'janov, P. L. 6749: The embedding of certain classes  $H_p^\alpha$  of functions.
- Ullian, Joseph S. 1205: Partial algorithm problems for context free languages.
- Ullman, J. L. 4173: (with Lyndon, R. C.) Pairs of real 2-by-2 matrices that generate free products.
- Ullrich, D. F. 3078: (with Coffman, C. V.) On the continuation of solutions of a certain non-linear differential equation.
- Ullrich, M. 1157: (with Žaludová, A. H. and Rejný, Z.) A survey of some recent Czechoslovak work in automatic statistical process control.
- Umanakii, Ju. B. 6778: (with Valnikko, G. M.) Regular operators.
- Undalova, I. A. 4314: A geometric interpretation and a generalization of a certain theorem of Ljapunov.
- Ungar, Gerald S. 3542: Pseudoregular mappings.
- Uno, Yoshikazu. 3346: Operating functions on some subspaces of  $l_p$ .
- Upadhyay, Manjari. 1654: Certain transformations and summation formulae for basic bilateral hypergeometric series  ${}_2V_2$ .
- Urabe, Minoru. 3796: Roundoff error distribution in fixed-point multiplication and a remark about the rounding rule.
- Ural'ceva, N. N. 1769: The impossibility of  $W_2^3$  estimates for multi-dimensional elliptic equations with discontinuous coefficients. 604: (with Ladyženskaja, O. A.) On linear and quasi-linear equations and systems of elliptic and parabolic types. 3182: (with Ladyženskaja, O. A.) Certain classes of nonuniformly elliptic equations.
- Ural'tseva, N. N. *See* Ural'ceva, N. N.
- Uranisi, H. 2384: Optimum design for the special cubic regression on the  $q$ -simplex.
- Urazbaev, B. M. 1354: Asymptotic estimates of certain arithmetical sums.
- Urbanek, Léonard. 2934: (with Moszner, Zenon) Comparaison de la rarefaction logarithmique d'un ensemble et d'un sous-ensemble.
- Urbanik, K. 3988: On some numerical constants associated with abstract algebras. II. 5913: A representation of self-decomposable distributions.
- Urquhart, N. S. 2771: Computation of generalized inverse matrices which satisfy specified conditions.
- Usačev, E. S. 2543: A stochastic teaching model and its properties.
- Ušan, Janex. 2664: A certain 2-ary bimodal operator algebra.
- Ushijima, Teruo. 1821: Note on the integration of the wave equation.
- Uskov, G. V. 3867: (with Mel'c, I. O. and Pyhova, T. A.) Multidimensional statistical linearization of functions containing factors of power, exponential, trigonometric, and  $\delta$ -function type.
- Uspenski, W. A. *See* Uspenskii, V. A.
- Uspenskii, V. A. 3884a: (with Dynkin, E. B.) ★Map coloring problems. Mathematical conversations. I. 3884b: (with Dynkin, E. B.) ★Problems from number theory. Mathematical conversations. II. 3884c: (with Dynkin, E. B.) ★Random walks. Mathematical conversations. III.
- Ustin, Fred. 6680: A remark on the Gibbs phenomenon and Lebesgue constants for a summability method of Melikov.
- Ustinov, Ju. K. 5381: A certain class of plane mappings.
- Uvarov, V. B. 5506: Asymptotic properties of the solutions of linear differential equations with retarded argument.
- Uzawa, Masakatsu. 465: On Cousin I problem in a domain excluding an analytic set.
- Uždavinis, R. *See* Uždavinys, R.
- Uždavinys, R. 4041: An analogue of the Erdős-Wintner theorem for the sequence of values of an integral polynomial.
- Vacca, R. 1307: (with Gross, W.) Distribution of the figures 0 and 1 in the various orders of binary representations of  $k$ th powers of integers.
- Văduva, I. 4915: (with Theodorescu, R.) On multivariate optimal sampling inspection plans.
- Vahanija, N. N. 368: A certain condition for the existence of the Pettis integral. 4858: (with Kandelaki, N. P.) Estimate of the speed of convergence in the multidimensional central limit theorem.
- Vahovskii, E. B. 3952: A certain method of dismantling a graph.
- Vaidya, A. M. 1306: (with Gioia, A. A.) Correction to: "Amicable numbers with opposite parity".
- Vainberg, B. R. 6601: Elliptic problems in unbounded domains. 3176: (with Gindikin, S. G.) A strengthened Huygens principle for a certain class of differential operators with constant coefficients. 601: (with Grušin, V. V.) Uniformly non-coercive problems for elliptic equations.
- Vainberg, Ju. R. 6285: (with Šafarevič, I. R.; Averbuh, B. G.; Žičenko, A. B.; Manin, Ju. I.; Mošeson, B. G.; Tjurina, G. N. and Tjurin, A. N.) ★Algebraische Flächen.
- Vainikko, G. M. 5684: Similar operators. 6778: (with Umanakii, Ju. B.) Regular operators.
- Vainstein, I. A. *See* Steenrod, N. E. and Chinn, W. G., #3161.
- Vaisman, Izr. 4736: Tenseurs projectifs sur une variété différentiable. 5804: Contributions à la géométrie différentielle projective-symplectique. 5805: On the geometry of flag manifolds in a symplectic space. 6955: The curvature groups of a space form.
- Vajda, Igor. 5053: Axiomatic definition of energy of complete or incomplete probability schemes.



- Vajda, S. 3927: ★Patterns and configurations in finite spaces. 3928: ★The mathematics of experimental design: Incomplete block designs and Latin squares.
- Vajnberg, Ju. B. See Valnberg, Ju. R.
- Vajzović, Fikret. 4448: On solution of one functional equation.
- Vakrinene, S. P. See Vakrinienė, S.
- Vakrinienė, S. 5039: An antagonistic dynamic game based on repeating a bimatrix game.
- du Val, Patrick. See Du Val, Patrick.
- Vala, Klaus. 3523: A topological construction.
- Valadier, Michel. 3310: Sur l'intégration d'ensembles convexes compacts en dimension infinie.
- de Valcourt, B. Abel. 2093: Axially symmetric polygons inscribed in and circumscribed about convex sets.
- Valdivia Ureña, Manuel. 5338: Some convergence criteria in the theory of integration.
- Valiev, K. G. 4371: (with Tokarev, V. I.) Application of the asymptotic method to differential equations with retarded argument.
- Valentine, Frederick A. 2084: ★Konvexe Mengen.
- Valette, Guy. 3448: Une caractérisation interne des ensembles convexes.
- Valiev, V. A. 2196: The spectral dimension of perfectly  $n$ -dimensional bicomplexes.
- laValle, Irving H. See LaValle, Irving H.
- Vámos, P. 50: On ring classes defined by modules.
- le Van, Marijo O. See Le Van, Marijo O.
- Van-An'. See Wang-an.
- Van Dalen, Dirk. See van Dalen, Dirk.
- Van Dan'-Hil. See Wang Tan-chih.
- Van der Poorten, A. J. 2699: Transcendental entire functions mapping every algebraic number field into itself. 6293: A note on the independence of the axioms for a vector space. 3998: (with Cox, C. D.) On a sequence of prime numbers.
- Van der Put, M. See van der Put, M.
- Van der Waerden, B. L. See van der Waerden, B. L.
- Van de Wetering, R. L. See van de Wetering, R. L.
- Van Drooge, Dick. See van Drooge, Dick.
- Van Eeden, Constance. See van Eeden, Constance.
- Van Hoorn, Willy G. See van Hoorn, Willy G.
- Van Iperen, H. See van Iperen, H.
- Van Lint, J. H. See van Lint, J. H.
- Van Rooij, A. C. M. See van Rooij, A. C. M.
- Van Rooij, Arnoud. See van Rooij, Arnoud.
- Van Rootselaar, B. See van Rootselaar, B.
- Van Slyke, R. M. 6103: (with Dantzig, G. B.) Generalized upper bounding techniques. 5047: (with Wets, Roger J.-B.) A duality theory for abstract mathematical programs with applications to optimal control theory.
- Van Tiel, J. See van Tiel, J.
- Van Vleck, F. S. 4787: (with Himmelberg, C. J.) Some remarks on Filippov's lemma.
- Van Winter, Clasine. See van Winter, Clasine.
- Vapnik, V. N. 6986: (with Červonenkis, A. Ja.) The uniform convergence of frequencies of the appearance of events to their probabilities.
- Varadarajan, V. S. 1529: On the ring of invariant polynomials on a semisimple Lie algebra. 1526: (with Parthasarathy, K. R. and Ranga Rao, R.) Representations of complex semi-simple Lie groups and Lie algebras.
- Varaiya, P. 801: (with Eggert, D.) Representation of a differential system. 6562: (with Eggert, D.) Affine dynamical systems.
- Varberg, Dale E. 5921: Almost sure convergence of quadratic forms in independent random variables.
- Vareh, N. V. 6540: (with Sevelo, V. M.) The zeros of solutions of nonlinear non-autonomous ordinary differential equations of the second order.
- Varga, G. 5919: (with Nemets, T.) Extension of limit theorems.
- Varga, Richard S. 4932: (with Medley, Helen I.) On smallest isolated Gerschgorin disks for eigenvalues. II. 4953: (with Medley, Helen I.) On smallest isolated Gerschgorin disks for eigenvalues. III. 665: (with Schultz, M. H.)  $L$ -splines. 2404: (with Birkhoff, G. and Schultz, M. H.) Piecewise Hermite interpolation in one and two variables with applications to partial differential equations. 4965: (with Ciarlet, P. G. and Schultz, M. H.) Numerical methods of high-order accuracy for nonlinear boundary value problems. II. Nonlinear boundary conditions.
- Varlamova-Luks, L. N. 789: Positive spectral functions of symmetric operators with finite defect numbers.
- Varlet, J. C. 3971: A generalization of the notion of pseudo-complementedness. 3970: (with Grillet, P. A.) Complementedness conditions in lattices.
- Varma, H. O. Singh. See Singh Varma, H. O.
- Varma, R. C. 5444: Generalisation of MacRobert's results involving Legendre polynomials to other orthogonal polynomials.
- Varma, R. S. 4895: (with Jain, J. L.) Queueing models. 5056: (with Nath, Prem) Information theory—A survey.
- Vasconcelos, Wolmer V. 2750: A note on normality and the module of differentials. 5203: Extensions of Macaulay rings. 6275: (with Levin, G.) Homological dimensions and Macaulay rings.
- Vaserstein, L. N. 1475: Subgroups of finite index of a spin group of rank greater than or equal to 2. 4200: Groups having the property  $T$ . 5301: The congruence problem for the unitary group of rank greater than or equal to 2.
- Vasić, P. M. 6637: (with Dragilă, P.) Équations fonctionnelles cycliques linéaires non homogènes. 1831: (with Janić, R. R.) Sur une équation fonctionnelle où interviennent les déterminants. 5560: (with Janić, Radovan R.) Sur une équation fonctionnelle linéaire. 339: (with Mitrinović, D. S.) Monotonicity of the ratio of two means. 5342d: (with Mitrinović, D. S.) Généralisation d'un procédé fournissant des inégalités du type de Rado. 5342e: (with Mitrinović, D. S.) Inégalités du type de Rado concernant des fonctions symétriques. 5342f: (with Mitrinović, D. S.) Généralisation d'une inégalité de Henrici. 5342g: (with Mitrinović, D. S.) Inégalités pour les fonctions symétriques élémentaires. 5342i: (with Mitrinović, D. S.) Une inégalité générale relative aux moyennes d'ordre arbitraire. 6636: (with Mitrinović, D. S.) On a quadratic functional equation.
- Vasilach, Serge. See Vasilache, Sergiu.
- Vasilache, Sergiu. 6486: (with Kaup, Ludger) Produit de composition dans des classes de cohomologie analytique.
- Vasilescu, F.-H. 4656: Some properties of the commutator of two operators.
- Vasil'ev, F. P. 3211: The method of straight lines for the solution of a single-phase problem of Stefan type.
- Vasil'ev, Ju. L. 3553: Vector fields on the set of vertices of the  $n$ -dimensional unit cube.
- Vasil'ev, Ju. P. 5319: (with Fomin, A. N.) On the problem of representability of the elements of a set.
- Vasil'eva, A. B. 3229: The correspondence between certain properties of the solutions of linear difference systems and systems of ordinary linear differential equations. 5486: Investigation of the asymptotic properties of a differential equation encountered in certain kinetics problems. 6571: Methods of investigation of oscillation processes described by equations of neutral type with a small retardation. 1731: (with Tupčiev, V. A.) Periodic solutions of systems of differential equations with a small parameter at the derivatives, close to discontinuous ones.
- Vasil'eva, L. G. 2437: (with Bahvalov, N. S.) The calculation of integrals of oscillatory functions by interpolation at the Gaussian quadrature nodes.
- Vasil'eva, O. A. 686: The multiplier problem in  $l_p$  for orthogonal series in Haar's system.
- Vasquez, A. T. 2254: On characteristic classes of flat Riemannian manifolds.
- Vasudevan, R. 5245: (with Ramakrishnan, Alladi; Ranganathan, N. R. and Chandrasekaran, P. S.) A generalization of the  $L$ -matrix hierarchy.
- Vaught, Robert L. 3916: Axiomatizability by a schema.
- de Vecchi, Bruno. 3697: Linear correlation by the method of minimum absolute values.
- Vecchio, Giuseppe. 1368: Su certi interi associati a un ideale e le molteplicità d'intersezione.
- Ved', Ju. A. 1935: The existence, for a second order integro-differential equation, of solutions having asymptotes. 1936: A certain asymptotic property of solutions of linear integro-differential equations. 1938: The existence of asymptotic parabolas for the

- solutions of integro-differential equations with infinite interval of integration. **3301**: Asymptotic estimates of the solutions of linear integro-differential equations. **4534**: Perturbations of linear homogeneous differential equations with variable coefficients. **4535**: Sufficiency tests for the absence of singular points in integro-differential equations. **5648**: The existence of solutions of integro-differential equations with given nonvertical asymptotes. **5650**: The asymptotic curves of integro-differential equations. **5657**: An initial value problem and limit value problems for integro-differential equations with infinite interval of integration. **724**: (with Kitaeva, L. N.) Criteria for the existence of asymptotes of solutions of integro-differential equations with retarded argument. **4536**: (with Kitaeva, L. N.) Convergence to finite limits of the solutions of integro-differential equations with retarded argument. **1937**: (with Merenkov, V. Z.) A certain limit boundary value problem for a linear integro-differential equation. **722**: (with Ražapov, G.) The stability of solutions of nonlinear integro-differential equations. **4537**: (with Samudinov, I.) The unique solvability of two types of limit boundary value problems for integro-differential equations.
- Vedernikov, V. A. **1466**: Finite groups with permutable subgroups.
- Veenker, G. **6059**: Beweisalgorithmen für die Prädikatenlogik.
- Veevers, A. **2354**: (with Tweedie, M. C. K.) The inversion of cumulant operators for power-series distributions, and the approximate stabilization of variance by transformations.
- Vegh, Emanuel. **6249**: Pairs of consecutive primitive roots modulo a prime.
- Vehov, P. P. **1066**: (with Gold'berg, M. P.) On the problem of solving systems of linear algebraic equations.
- Veic, B. E. **4575**: Lacunary systems.
- Vekaler, A. I. **122**: Realizational partial multiplications in linear lattices.
- Vekus, I. N. See Bibliography of the scientific works of I. N. Vekus, #1222.
- Vekus, N. P. **6721**: A certain system of integro-differential equations with a small parameter.
- Veličenko, V. V. **1182**: Optimal control of composite systems.
- Veličko, N. V. **891**: An example of an open compact monotonic continuous mapping of a non-metrizable bicomactum onto a compactum. **3595**: †On the theory of  $H$ -closed topological spaces.
- Venne, Marc. **47**: Ultraproduits de structures d'ordres supérieurs.
- Ventcel', A. D. **2322**: The absolute continuity of the transition probabilities of a multidimensional generalized Brownian motion.
- Ventcel', E. S. **5033**: ★Elements of game theory.
- Ventsell, E. S. See Ventcel', E. S.
- Venugopal Rao, V. **3024**: A uniqueness theorem for harmonic functions. **3027**: Normal families of harmonic functions. **5602**: (with Sharma, P. L.) On the logarithmic ( $L$ ) mean of the conjugate Fourier series and its differentiated series.
- Verbanov, S. A. **3258**: Some properties of generalized polynomials of degree  $\leq n$  which deviate least from zero on a finite interval.
- Verbeure, André. **5012**: (with Balslev, Erik) States on Clifford algebras.
- Verbitskii, I. L. **163**: Estimate of the remainder term in the Kronecker-Weyl approximation theorem.
- Verdier, J. L. **6292**: A duality theorem in the étale cohomology of schemes.
- Ver Eecke, Paul. **5812**: Sur les tenseurs de structure d'ordre supérieur d'une  $G$ -structure. **6156**: ★Les coniques d'Apollonius de Perge.
- Vere-Jones, D. **2291**: The infinite divisibility of a bivariate gamma distribution. **3658**: (with Rubin, H.) Domains of attraction for the subcritical Galton-Watson branching process.
- Verma, Arun. **3064**: Integration of  $E$ -function with respect to their parameters. II. **4294**: Certain expansions involving Meijer's  $G$ -functions. **5435**: A transformation connecting products of generalized basic hypergeometric functions.
- Verma, G. R. **3133**: (with Lakshmikantham, V.) Several Lyapunov functions and mixed stability.
- Verma, R. U. **1657**: Certain integrals involving the  $G$ -function of two variables.
- Verner, A. L. **812**: Hyperbolic polyhedra. **5825**: The structure of certain complete surfaces of nonpositive curvature. **2097**: (with Bakel'man, I. Ja.) The disposition in space of curves with periodic curvature and torsion. **3481**: (with Bakel'man, I. Ja.) The construction, by means of the mean curvature, of a surface with given boundary which has a single-valued non-convex projection. **4238**: (with Ivanova, T. V.) The area of irregular surfaces in spaces of constant curvature. **5835**: (with Nasrulaev, F. S.) Polyhedral bands and the topological structure of hyperbolic polyhedral surfaces with one-to-one spherical representation.
- Vernotte, Pierre. **5565**: Remarques sur la sommation approchée des séries asymptotiques de deuxième espèce faiblement divergentes.
- Vértési, Péter. **3248**: Proof of the Jackson theorem by interpolation.
- Veržbinskii, G. M. **3030**: (with Maz'ja, V. G.) The asymptotics of solutions of the Dirichlet problem near a non-regular frontier.
- Vetuhnovskii, F. Ja. **3953**: Problems on coverings of a graph by a system of neighborhoods of its vertices.
- Viciu, A. **1827**: Concerning a generalization of a functional equation of D. Pompeiu-I. I. Stamate.
- Vidal, Enrique. **4830**: Mesures définies sur les espaces des feuilles d'un feuilletage.
- Vidal, Pierre. **6127**: (with Węgrzyn, Stefan) Sur la stabilité absolue des systèmes non linéaires continus et échantillonnés.
- Vidav, Ivan. **6093**: Existence and uniqueness of nonnegative eigenfunctions of the Boltzmann operator.
- Vietoris, L. **2667**: Über eine Zählfunktion von K. Nageswara Rao.
- Vilkin, A. V. **3134**: Stability in the large of certain systems of differential equations.
- Vilenkin, N. Ja. **1666**: Laguerre polynomials, Whittaker functions and representations of the group of bordered matrices. **5429**: ★Special functions and the theory of group representations.
- Villamayor, O. E. **4064**: Separable algebras and Galois extensions.
- Villani, Vincio. **4687**: Un teorema di passaggio al limite per la coomologia degli spazi complessi.
- Villanueva Névoa, E. **1476**: Coproducts in the category of groups.
- Vilms, Jaak. **4742**: Connections on tangent bundles.
- Vil'ner, Isif Aleksandrovič. **6056**: Quadrature-free nomography. Algebraic nomography and the problem of the anamorphosis of functions in the two-dimensional plane with  $n=6$  variables. I. **6055**: (with Galajda, P.) Foundations of anallagmatic nomography.
- Vince, I. **2390**: On some questions connected with two-sample tests of Smirnov type. **4929**: On the power of the Kolmogorov-Smirnov two-sample test and related non-parametric tests. See also Studies in mathematical statistics: Theory and applications, #2346.
- Viner, I. Ja. **5558**: Silberstein's functional equation.
- Vinograd, R. É. **6541**: Accessibility of the central exponent.
- Vinogradov, A. I. **151**: (with Sprindžuk, V. G.) The representation of numbers by binary forms.
- Vinogradov, O. P. **2341**: Limit distributions for the moment of the first loss of request in a single line queue with a bounded number of waiting places.
- Vinogradov, V. S. **3043**: An analog of the Cauchy type integral for analytic functions of several complex variables. **6606**: The Dirichlet problem for multidimensional second order elliptic systems.
- Vinokurov, V. G. **5929**: (with Mahkamov, B.) Lebesgue subspaces of the space of trajectories of a random process.
- Vinokurov, V. R. **5734**: A remark concerning A. Prato's paper: "Stability of the solutions of integral equations. I".
- Vinti, Calogero. **6809**: L'integrale di Fubini-Tonelli nel senso di Weierstrass. I. Caso parametrico.
- Vishwakarma, L. N. **6503**: On the extension of some Bessel and Struve integrals.
- Viliik, M. I. **3404**: (with Èakin, G. I.) Convolution equations of variable order.
- Vilnevalskii, V. V. **2154**: A parabolic analogue of  $A$ -spaces. **4759**: A certain property of analytic functions over algebras and its application to the study of complex structures in Riemannian spaces.
- Viswanath, K. **2945**: (with Natarajan, S.) On weakly stable transformations.
- Vitásek, E. **4904**: Numerical stability in solution of ordinary differential equations. **6010**: Stability of numerical processes.
- Viten'ko, I. V. **2959**: (with Kostova'kii, O. M.) Fujiwara's theorem concerning a lower bound for the absolute values of the zeros of power series.
- Viterbi, Andrew J. **7206**: On a class of polyphase codes for the coherent Gaussian channel.

- de Vito, C. L. *See* De Vito, C. L.
- de Vito, Luciano. 4279: On functions with finite Dirichlet integral. I, II.
- Vítov, V. F. 6717: A perturbed linear integral equation.
- Vitukhin, A. G. 5404: Analytic capacity of sets in problems of approximation theory.
- Vlach, Milan. 7166: (with Glückaufová, Dagmar) Discrete problems in dynamic programming.
- Vladimirov, V. S. 7187: Singularities in the solution of the transport equation. 1799: (with Drožžinov, Ju. N.) The generalized Cauchy problem for ultraparabolic equations. *See also* Jost, Res, #6090.
- Vladimirskii, Ju. N. 3396:  $\Phi_+$ -operators in locally convex spaces.
- Vlasov, L. P. 3329: Čebyšev sets and some generalizations of them.
- van Vleck, F. S. *See* Van Vleck, F. S.
- Vobach, Arnold R. 3530: Continua structured by families of simple closed curves. I, II.
- Vodnev, V. T. 3480: (with Fedenko, A. S.) Symmetric partially projective spaces.
- Vogel, J. 5636: Über die Verzweigungslösungen der identisch verschwindenden Lösung einer Klasse nichtlinearer Integralgleichungen vom Hammerstein-Typ (Hinweis auf ein Beispiel aus der Elasto-Mechanik). 6718: Über die Holomorphie-Eigenschaften der Lösung einer Integralgleichung von Hammerstein-Typ in bezug auf einen Parameter.
- Vogel, W. 5206: Torsionsfreie Moduln über einem regulären Stellenring.
- Vogler, Hans. 2094: Bestimmung einer oberen Schranke für den Inhalt des Parallelisierens eines regelmäßigen Körpers. 3460: Über eine besondere Klasse von Gewindekurven.
- Voichick, M. 3023: (with Gamelin, T. W.) Extreme points in spaces of analytic functions.
- Voinov, Ju. N. 4409:  $S$ -capacity in the proof of Hölder continuity of a generalized solution of quasilinear equations near the boundary.
- Vo-Khao-Khoan. 2280: Fonctions et distributions vectorielles aléatoires d'ordre  $p$ . 4676: Solutions quasi-stationnaires d'équations différentielles opérationnelles du second ordre, application à l'équation des ondes non homogène. 5695: Distributions vectorielles quasi stationnaires.
- Vo Ky Lan. 6052: (with Feautrier, Nicole and Feautrier, Paul) Sur la résolution numérique de certains systèmes d'équations intégrales-différentielles de la mécanique quantique.
- Volence, Vladimir. 5777: (with Kurnik, Zdravko) Die Verallgemeinerungen des Ptolemäischen Satzes und einiger seiner Analoga in der euklidischen und den nichteuklidischen Geometrien.
- Volevič, L. R. 1761: Local properties of inhomogeneous pseudo-differential operators. 606a: (with Gindikin, S. G.) A certain class of hypoelliptic polynomials. 606b: (with Gindikin, S. G.) Letter to the editors. *See also* Hörmander, Lars, #6595.
- Vol'f, Verner. 960: Some limit theorems for large deviations.
- Volkov, E. A. 658: A remark on the approximation of functions by polynomials. 1098: Effective error estimates for solutions by the method of nets, of boundary value problems on a rectangle and on certain triangles for the Laplace and Poisson equations. 2468: The unimprovability of the error estimate of the method of refinements with higher order differences in a certain class of solutions of Poisson's equations.
- Volkov, V. I. 2004: Conditions for the convergence of sequences of linear multiplicative operators. 3347: The radius of an enclosing sphere in linear subspaces of the space  $L_1$ .
- Volkova, L. A. 6741: A basis in a space of entire functions of finite order.
- Volodin, I. N. 1016: Testing of statistical hypotheses on the type of distribution by small samples.
- Vološina, M. S. 4280: Some properties of a certain class of integrals of double layer potential type.
- Volosov, V. M. 4334: (with Morgunov, B. I.) Methods of computation of stationary resonant oscillatory and rotary motions of certain nonlinear systems.
- Von Bahr, Bengt. *See* von Bahr, Bengt.
- Von Kutschera, Franz. *See* von Kutschera, Franz.
- Von Waldenfels, Wilhelm. *See* von Waldenfels, Wilhelm.
- Von Wolfersdorf, Lothar. *See* von Wolfersdorf, Lothar.
- Vopěnka, P. 912: The limits of sheaves over extremally disconnected compact Hausdorff spaces. 5094: †(with Hájek, P.) Concerning the  $V$ -models of set theory. 1255: (with Hrbáček, K.) The consistency of some theorems on real numbers. 1250: (with Štěpánek, Petr) Decomposition of metric spaces into nowhere dense sets.
- Vorob'ev, N. N. *See* Vorobiev, M. M.
- Vorob'eva, M. A. 4491: Estimate of the deviation of a function from the linear means of certain trigonometric polynomials.
- Vorobiev, M. M. 433: The simultaneous approximation of functions and their derivatives in a complex domain.
- Voronkova, A. I. 2469: The solution of boundary value problems for Laplace's equation by the method of mesh Green's functions.
- Voronovskaja, E. V. 3267: The construction of extremal trigonometric polynomials of mixed type.
- Vorovič, I. I. 1815: (with Koval'čuk, V. E.) On the basic properties of a system of homogeneous solutions.
- Vorovich, I. I. *See* Vorovič, I. I.
- Voskresenskii, G. P. 6067: (with Babenko, K. I.; Ljubimov, A. N. and Rusanov, V. V.) ★Three-dimensional flow of ideal gases around smooth bodies.
- Vostrecov, B. A. 4478: (with Ignat'eva, A. V.) The existence in the  $L_p$  metric of the best approximation of functions by sums of a finite number of plane waves of given directions.
- Voitruha, J. 1134: (with Havlíček, M.) On the representation of infinite-dimensional Lie algebra  $A(P, S)$ .
- Vrānceanu, G. 846: Varietăți diferenziabile e transformazioni puntuali. 2318: Processi Markov associati ad una curva piana. 2512: Sur les métriques relativistes à symétrie sphérique. 4737: Varietăți diferenziabile e transformazioni puntuali. II. 1369: (with Simionescu, C.) Sur les espaces de Riemann associés à une forme cubique. 805: (with Teleman, C.) ★Euclidean geometry, non-euclidean geometries, theory of relativity.
- Vrkoč, Ivo. 4890: The exponential stability and periodic solutions of Ito stochastic equations with small stochastic terms.
- de Vroedt, C. 1337: A short proof of a theorem of Tauchikura.
- Vrublevskaja, I. N. 3848: The equivalence of strategies in a finite positional structure. 3849: The equivalence of mixed strategies and behavior strategies in a countable positional structure.
- Vu Duy Chan. 6092: Étude d'une classe d'équations non linéaires de la mécanique ondulatoire.
- Vujičić, Veljko A. 1119: The stability of the state of equilibrium of a system of dynamic points of variable mass.
- Vulih, B. Z. 121: ★Introduction to the theory of partially ordered spaces.
- Vulikh, B. Z. *See* Vulih, B. Z.
- Vvedenskaja, N. D. 4429: Solution of boundary layer equations in the neighborhood of a critical point. *See also* Hörmander, Lars, #6595.
- Vygodskii, M. Ja. 1215: ★Arithmetic and algebra in antiquity.
- Waadeland, Haakon. 1568: A convergence property of certain  $T$ -fraction expansions.
- Waddill, Marcellus E. 145: (with Sacks, Louis) Another generalized Fibonacci sequence.
- van der Waerden, B. L. 4013: Darstellung von Zahlen durch binäre Formen. Abriss der Ergebnisse von Gauss. *See also* Studien zur Theorie der quadratischen Formen, #4014.
- Wagner, K. 1273: Zum Basisproblem für Graphenmengen, insbesondere für die nicht in die projektive Ebene einbettbaren Graphen.
- Wakakuwa, Hidekiyo. 6888: On 1st Chern form and holonomy algebra of a Kähler manifold.
- Wakimoto, Kazumasa. 3727: (with Takahasi, Koiti) On unbiased estimates of the population mean based on the sample stratified by means of ordering.
- von Waldenfels, Wilhelm. 5610: Positiv definite Funktionen auf einem unendlich dimensionalen Vektorraum.
- Waldhausen, Friedhelm. 3576: Heegaard-Zerlegungen der 3-Sphäre.
- Walk, Harro. 2961: Über das Randverhalten zufälliger Potenzreihen.
- Walk, Manfred. 3196: Ein kombiniertes Randwertproblem im Einheitskreis. 5532: Verallgemeinerte Lösungen von Randwertproblemen elliptischer Differentialgleichungen.
- Walkup, D. W. 2095: A simplex with a large cross section.



- Wall, C. T. C. 3577: Locally flat PL submanifolds with codimension two. 3578: On bundles over a sphere with fibre Euclidean space.
- Wallin, Hans. See Carleson, Lennart, #1576.
- Wallis, J. See Kramer, F. D., #14.
- Walsh, Bertram. 466: Maximal linear mappings and smooth selection of measures on Choquet boundaries.
- Walsh, J. B. 3049: Continuity of envelopes of plurisubharmonic functions.
- Walsh, J. L. 661: (with Ahlberg, J. H. and Nilson, E. N.) Extremal, orthogonality, and convergence properties of multidimensional splines. 6650: (with Ahlberg, J. H. and Nilson, E. N.) Cubic splines on the real line.
- Walter, Johann. 5458: Bemerkungen zu dem Grenzpunktkriterium von N. Levinson.
- Walter, Rolf. 2110: Über Grenzübergänge in der Differentialgeometrie. 4730: Zur projektiven Kinematik konjugierter Systeme des  $n$ -dimensionalen Raumes.
- Walter, Wolfgang. 2571: Das wissenschaftliche Werk von Erich Kamke.
- Walters, Peter. 336: Topological conjugacy of affine transformations of tori.
- Walters, R. F. C. 1835: Alternative derivation of some regular continued fractions.
- Walton, Paul. 6528: A nonlinear boundary value problem. 3165: (with Grimmer, R. C.) A comparison theorem for a class of nonlinear differential inequalities. 5970: (with Robertson, Tim) On estimating monotone parameters. 6524: (with Bailey, Paul B. and Shampine, Lawrence F.) ★Nonlinear two point boundary value problems.
- Walton, T. H. 894: A counter-example in dimension theory.
- Wang, C.-C. 4994: On the geometric structures of simple bodies. A mathematical foundation for the theory of continuous distributions of dislocations.
- Wang, K. C. 101: Transition graphs of affine transformation on vector spaces over finite fields.
- Wang, P. K. C. 3856: Theory of stability and control for distributed parameter systems: A bibliography.
- Wang-an. 5922: (with El'ov, I. I.) Limit theorems for a class of random variables connected in a Markov chain.
- Wang Tan-chih. 3135: A certain criterion for Ljapunov stability.
- Wang Yuan. 5162: Estimation and application of character sums.
- Wani, J. K. 951: Moment relations for some discrete distributions. 952: On the linear exponential family.
- Wanner, G. 3767: Zur Berechnung von Integralen mit asymptotischen Reihen.
- Ward, L. E. 5854: On the non-cutpoint existence theorem.
- Ward, M. M. 3743: (with McIntyre, G. A.) Estimators of percentile points of the  $F$  distribution.
- Warga, J. 2064a: Functions of relaxed controls. 2064b: Restricted minima of functions of controls. 3857: The reduction of certain control problems to an "ordinary differential" type.
- Warne, R. J. 1501: Simple inverse semigroups mod groups.
- Warne, W. G. 3793: (with Elliott, David) An algorithm for the numerical solution of linear integral equations.
- Warner, Seth. 4133: Two types of locally compact rings.
- Warrack, Brian. 4784: (with Naimpally, Somashekhar) Clusters and ultrafilters.
- Warren, Hugh E. 1871: Lower bounds for approximation by nonlinear manifolds.
- Warzecha, A. 1995: (with Sawoń, Z.) On the general form of subalgebras of codimension 1 of  $B$ -algebras with a unit.
- Washihara, Masako. 3311: On ranked spaces and linearity. 3312: The continuity and the boundedness of linear functionals on linear ranked spaces. 6730: On the ranked group. 6729: (with Yoshida, Yukio) Remarks on bounded sets in linear ranked spaces.
- Wasow, Wolfgang. 3124: On the analytic validity of formal simplifications of linear differential equations. II. 4336: Connection problems for asymptotic series.
- Wasserman, Arthur. 6043: Cobordism of group actions.
- Wasserman, Robert H. 4996: On the geometry of magnetohydrodynamic flow.
- Watabe, Tsuyoshi. 929: A note on the imbeddability and immersibility of the total spaces of sphere bundle over sphere.
- Watanabe, Takeshi. 4282: (with Yosida, Kôzoku and Tanaka, Hiroshi) On the pre-closedness of the potential operator.
- Watanabe, Yoshiko. 863: Totally umbilical surfaces in normal contact Riemannian manifolds.
- Watanabe, Yutaka. 2795: The Dedekind different and the homological different. 2796: (with Endo, Shizuo) On separable algebras over a commutative ring.
- Waterman, Daniel. 6671: (with Goffman, Casper) Functions whose compositions with homeomorphisms have everywhere convergent Fourier series.
- Watson, G. S. 3853: (with Smith, W.) Diffusion out of a triangle.
- Watt, J. M. 1105: Convergence and stability of discretization methods for functional equations.
- Wattel, E. 6912: (with Strecker, G. E.; Herrlich, H. and de Groot, J.) Strengthening Alexander's subbase theorem.
- Watters, J. F. 5251: On the adjoint group of a radical ring.
- Watts, Donald G. 6000: (with Jenkins, Gwilym M.) ★Spectral analysis and its applications.
- Wawrzyńczyk, A. 698: The Bochner-Schwartz theorem on arbitrary locally compact Abelian groups. 3355: On tempered distributions and Bochner-Schwartz theorem on arbitrary locally compact Abelian groups.
- Webb, J. H. 5708: Linear operators with closed range.
- Wechsung, Gerd. 6638: Lineare Funktionalgleichungen von Polylarithmen.
- Weglorz, B. 5127: Completeness and compactness of lattices. 871: (with Pacholski, L.) Topologically compact structures and positive formulas. 129: (with Ryll-Nardzewski, C.) Compactness and homomorphisms of algebraic structures. 5136: (with Wojciechowska, A.) Summability of pure extensions of relational structures. 127: (with Fajtlowicz, S.; Holsztyński, W. and Mycielski, J.) On powers of bases in some compact algebras.
- Wegmann, Helmut. 3641: Über den Dimensionsbegriff in Wahrscheinlichkeitäräumen von P. Billingsley, I, II.
- Węgrzyn, Stefan. 6127: (with Vidal, Pierre) Sur la stabilité absolue des systèmes non linéaires continus et échantillonnés.
- Wehrfritz, B. A. F. 294: A note on periodic locally soluble groups.
- Wei, So-fel. 5305: Unitary groups over compact valuation rings of characteristic 2.
- Weidig, Ingo. 2768: Ein elementarer Beweis zur Unabhängigkeit der Axiome eines Vektorraumes.
- Weidmann, Joachim. 3405: Strong Carleman operators are of Hilbert-Schmidt type.
- Weier, Josef. 4739: Bemerkungen zum Inneren Differentialkalkül.
- Well, André. 155: Sur une formule classique.
- Well, M. 5940: Retournement du temps dans les processus Markoviens. 5941: Résolvantes en dualité.
- Weinacht, R. J. 6599: Fundamental solutions for a class of equations with several singular coefficients.
- Weiner, Howard J. 975: Nonlinear predictors depending on the last observation. 6439: Invariant measures and Cesàro summability.
- Weingram, S. 6937: The realization of a semisimplicial bundle map is a  $k$ -bundle map.
- Weinstein, Alan. 3478: A fixed point theorem for positively curved manifolds.
- Weiss, B. 5403: (with Rivlin, T. J.) Some best polynomial approximations in the plane.
- Weiss, Lionel. 5973: (with Wolfowitz, J.) Estimation of a density function at a point.
- Weiss, Mary. See Zygmund, A., #6153.
- Weiss, Max L. 3006: Note on a theorem of Bourling.
- Weiss, Norman J. 6489: An isometry of  $H^p$  spaces. 5422: (with Stein, E. M.) Convergence of Poisson integrals for bounded symmetric domains.
- Welch, John N. 5351: (with Bogdanowicz, W. M.) Integration generated by orthogonal volumes and extensions of orthogonal volumes to orthogonal measures.
- Welch, Lloyd R. 301: (with Hoffman, Frederick) Totally variant sets in finite groups and vector spaces.
- Welland, G. V. 1534: Differentiability almost everywhere of functions

- of several variables. 1874: Fractional differentiation of functions with lacunary Fourier series. 3238: On the fractional differentiation of a function of several variables.
- Welland, Robert. 1961: Bernstein's theorem for Banach spaces.
- Wells, Charles. 4160: A generalization of the regular representation of finite Abelian groups.
- Welsh, D. J. A. 1260: On dependence in matroids. 2623: Kruskal's theorem for matroids.
- Wendland, Wolfgang. 7103: Die Behandlung von Randwertaufgaben im  $R_2$  mit Hilfe von Einfach- und Doppelschichtpotentialen. 797: (with Bruhn, Gerhard) Über die näherungsweise Lösung von linearen Funktionalgleichungen.
- Wenger, Ronald. 4189: Some semigroups having quasi-Frobenius algebras. I.
- Wenjen, Chien. 885: Realcompact spaces. 4588: Rings of generalized continuous functions.
- Wenzel, G. H. 1296: On Marczewski's six-tuple of constants in finite universal algebras.
- Wergeland, H. 6093: On an alternative to the Wiener Kintchine representation of a stationary stochastic process.
- Wessels, J. 6746: (with Peletier, L. A.) On Sobolev's first embedding theorem.
- West, T. T. 3358: (with Kaashoek, M. A.) Locally compact monothetic semi-algebras.
- Westwick, Roy. 1397: Transformations on tensor spaces.
- Weusely, T. 3594: On a theorem of H. Hopf.
- van de Vettering, R. L. 477: A generalization of the Mehler-Dirichlet integral. 476: (with Meulenbeld, B.) On some series of Dougall.
- Wets, Roger J.-B. 5047: (with Van Slyke, Richard M.) A duality theory for abstract mathematical programs with applications to optimal control theory.
- Wetterling, W. 6050: Lokal optimale Schranken bei Randwertaufgaben.
- Wetzel, J. E. 4444: On the functional inequality  $f(x+y) \geq f(x)f(y)$ .
- Weyl, Hermann. 6157: ★Gesammelte Abhandlungen. Bände I, II, III, IV.
- Wheeden, Richard L. 1634: (with Hunt, Richard A.) On the boundary values of harmonic functions.
- Whelon, Albert D. 1060: ★Tables of summable series and integrals involving Bessel functions.
- White, D. J. 4785: Functions preserving compactness and connectedness are continuous.
- Whiteman, R. A. 426: A concise proof of Borel's theorem on coefficient bounds.
- Whiteside, D. T. See *Mathematical papers of Isaac Newton*, #3901.
- Whitley, Robert. 4576: The size of the unit sphere.
- Whitney, E. L. 1586: Loewner's equation and Grunsky's inequalities.
- Whitney, Hassler. 3503a: The mathematics of physical quantities. I. Mathematical models for measurement. 3503b: The mathematics of physical quantities. II. Quantity structures and dimensional analysis.
- Whyburn, Clifton T. 139: The density of power residues and non-residues in subintervals of  $[1, \sqrt{p}]$ .
- Whyburn, Gordon T. 895: What is a curve? 3543: Retracting multifunctions.
- Wick, G. C. 3817: Discrete symmetries problems. 3816: (with Lee, T. D.) Space inversion, time reversal, and other discrete symmetries in local field theories.
- Widlund, Olof B. 7104: On the rate of convergence of an alternating direction implicit method in a noncommutative case.
- Widom, Harold. 7081: (with Wilf, Herbert) Errata to: "Small eigenvalues of large Hankel matrices".
- Wiebe, Hartmut. 4067: (with Scheja, Günter) Über die Divisorenklassengruppen lokaler Ringe auf zweidimensionalen normalen Hyperflächen.
- Wiegand, Roger. 6355: The cohomological dimension of Stone spaces.
- Wiener, Klaus. 710: Integralgleichungen mit Hadamard-Integralen mit festen Singularitäten. 4524: Über die Lösung nichtlinearer Integralgleichungen mit Hadamard-Integralen.
- Wienschitz, Ernst. 4401: (with Rohde, Hanns-Walter) Ein Regularitätssatz zur schwachen 2. Randbedingung mit Anwendungen auf elliptische Differentialoperatoren.
- Wijsman, R. A. 1029: Bounds on the sample size distribution for a class of invariant sequential probability ratio tests.
- Wilansky, Albert. 2781: Spectral decomposition of matrices for high school students. 6731: An elementary version of the Mackey-Arens theorem. 5568: (with Chang, S. C.; Macphail, M. S. and Snyder, A. K.) Consistency and replaceability for conull matrices.
- Wilcox, Calvin H. 1121: Steady-state wave propagation in homogeneous anisotropic media.
- de Wilde, Marc. See De Wilde, Marc.
- Wilder, B. E. 5852: Concerning point sets with a special connectedness property.
- Wilf, Herbert S. 5106: Hadamard determinants, Möbius functions, and the chromatic number of a graph. 7081: (with Widom, Harold) Errata to: "Small eigenvalues of large Hankel matrices".
- Wilken, D. R. 2005: Representing measures for harmonic functions.
- Wilkinson, J. H. 1386: Almost diagonal matrices with multiple or close eigenvalues. 3797: A survey of error analysis of matrix algorithms. 7075: The basic forms of error analysis of matrix processes.
- Wilks, Samuel S. 2345: ★Mathematical statistics.
- Wille, R. J. 4197: The existence of a topological group with automorphism group  $C_7$ .
- Willems, Jan C. 6537: On the asymptotic stability of the null solution of linear differential equations with periodic coefficients.
- Willett, D. 1674: The existence-uniqueness theorem for an  $n$ th order linear ordinary differential equation. 3093: Uniqueness of solutions of boundary value problems. 509: (with Wong, J. S. W.) Some boundedness and unboundedness results for the equation  $x'' + a(t)x^{2n-1} = 0$ . 1707: (with Wong, J. S. W.) Some properties of the solutions of  $[p(t)x]' + q(t)f(x) = 0$ .
- Williams, David. 2326: A note on the  $Q$ -matrices of Markov chains.
- Williams, David N. 1139: Energy-momentum conservation implies translation invariance: Some didactic remarks.
- Williams, H. C. 2680: (with Zarnke, C. R.) A report on prime numbers of the forms  $M = (6a+1)2^{2n-1} - 1$  and  $M' = (6a-1)2^{2n} - 1$ .
- Williams, Henry F. 2426: On the evaluation of functions of a real matrix.
- Williams, J. H. 3616: (with Purdom, P. W.) Cycle length in a random function.
- Williams, James P. 761: Schwarz norms for operators.
- Williams, Kenneth S. 138: On a theorem of Niven. 2731: On general polynomials. 2732: On extremal polynomials. 5152: Addendum: "On a theorem of Niven". 191: (with McCann, K.) Cubic polynomials with the same residues (mod  $p$ ).
- Williams, M. M. R. 711: On an integral equation arising in the theory of neutron streaming.
- Williams, R. E. 4108: A note on weak Bezout rings. 6312: Sur une question de P. M. Cohn.
- Williams, R. K. 5858: Expansive mappings.
- Williams, W. E. 620: Two dimensional mixed boundary-value problems in a wedge-shaped region.
- Williams, William O. 7121: (with Gurtin, Morton E.) On the inclusion of the complete symmetry group in the unimodular group. 1110: (with Gurtin, Morton E. and Mizel, Victor J.) A note on Cauchy's stress theorem.
- Williamson, J. A. 2328: Random walks and Riesz kernels.
- Williamson, S. G. 239: Some remarks on a class of matrix inequalities.
- Williamson, Susan. 1363: Crossed products and ramification. 6356: II-principal hereditary orders.
- Willmore, T. J. 849: Note on the Ślebodziński tensor of an almost-complex structure.
- Willner, Leopold B. 6661: On the distance between polytopes.
- Wills, Jörg M. 2697: Zwei Sätze über inhomogene diophantische Approximation von Irrationalzahlen. 7057: Zum Restglied der Newton-Gregoryschen Quadraturformel.
- Wils, W. I. M. 4637: ★Stone-Čech compactification and representations of operator algebras.
- Wilson, E. L. 2852: Absolutely independent axioms for a finite group.
- Wilson, F. Wesley, Jr. 4826: Implicit submanifolds. 6964: The structure of the level surfaces of a Lyapunov function.
- Wilson, R. 385: An extension of the almost isolated singularity of finite exponential order.

- Wimp, Jet. 1655: Recursion formulae for hypergeometric functions.
- Wing, G. M. 3302: On certain Fredholm integral equations reducible to initial value problems.
- Winkler, Jörg. 2963: ★Über eine Klasse Borel-monogener Funktionen und deren Anwendung auf die Werteverteilungstheorie.
- Winograd, S. 3735: On the number of multiplications required to compute certain functions.
- van Winter, Clasine. 2505: Orbital angular momentum and group representations.
- Winter, D. J. 2910: (with Sagle, A.) On homogeneous spaces and reductive subalgebras of simple Lie algebras.
- Winter, D. L. 326: On the restrict-induce map of group characters.
- Witsenhausen, Hans S. 6124: A minimax control problem for sampled linear systems. 7202: A counterexample in stochastic optimum control.
- Wittich, H. 5452: Zur Kennzeichnung linearer Differentialgleichungen mit konstanten Koeffizienten.
- Wloka, Joseph. 4615: Über die Cauchyaufrage für korrekte Convolutiongleichungssysteme. 1945: (with Floret, Klaus) ★Einführung in die Theorie der lokalkonvexen Räume.
- Wojciechowska, A. 5136: (with Weglors, B.) Summability of pure extensions of relational structures.
- Wojtasiewicz, Olgierd. 2592: Towards a general theory of sign systems. II. See also Słupecki, J. and Borkowski, L., #3904.
- von Wolfersdorf, Lothar. 7184: Eine Bemerkung zur Theorie der symmetrischen Zeitepiele.
- Wolfhardt, Klaus. 3054: Variation of a complex structure in a point.
- Wolfowitz, J. 5973: (with Weiss, Lionel) Estimation of a density function at a point.
- Wolk, E. S. 2637: The topology of a partially well ordered set.
- Wolter, Helmut. 5089: Eine Erweiterung der klassischen Analysis. 2588: (with Hauschild, Kurt) Zur Charakterisierung von Theorien mit syntaktisch beschreibbarer Auswahlfunktion.
- Wong, James S. W. 1706: On an integral inequality of Gronwall. 3109: A note on second order nonlinear oscillation. 4682: Two extensions of the Banach contraction mapping principle. 1708: (with Kayande, A. A.) Finite time stability and comparison principles. 507: (with Macki, Jack W.) Oscillation of solutions to second-order nonlinear differential equations. 509: (with Willett, D.) Some boundedness and unboundedness results for the equation  $x'' + a(t)x^{2n-1} = 0$ . 1707: (with Willett, D.) Some properties of the solutions of  $[p(t)x']' + q(t)f(x) = 0$ .
- Wong, Seok Pin. 4918: Asymptotically optimum properties of certain sequential tests.
- Wong, W. J. 5302: A cohomological characterization of finite nilpotent groups.
- Wong, Yung-chow. 4747: Sectional curvatures of Grassmann manifolds. 5766: Some extensions of the Douglas-Neumann theorem for concentric polygons.
- Wood, James A. 4616: A generalization of the Mikusinski operational calculus.
- Wood, R. 3583: Polynomial maps from spheres to spheres.
- Wood, Van E. 2399: (with Hanson, Ira C.; Glasser, M. L. and Fettis, Henry E.) Table errata. 2398: (with Bradley, Lee C.; Aggarwal, H. R.; Ablow, C. M. and Glasser, M. L.) Table errata.
- Woodbury, Max A. 1032: (with Novick, Melvin R.) Maximizing the validity of a test battery as a function of relative test lengths for a fixed total testing time.
- Woods, A. C. 160: (with Bambah, R. P.) Convex bodies with a covering property. 6838: (with Bambah, R. P.) The covering constant for a cylinder.
- Woolcock, W. S. 4517: Asymptotic behavior of Stieltjes transforms. I.
- Worm, Dietmar. 4869: (with Richter, Wolfgang) Ein informations-theoretischer Zugang zum Null-Eins-Gesetz.
- Woronowicz, St. 6089: A generalization of a theorem by Wightman.
- Woyczyński, W. A. 1986: Orlicz spaces have the weak difference property. 3348: Remarks on eigenvalues of infinite matrices. 5688: Additive functionals on Orlicz spaces.
- Wraith, G. C. 1444: Hopf algebras over Hopf algebras.
- Wrench, John W., Jr. 2414: (with Lal, Mohan and Shanks, Daniel) Corrigenda to: "The calculation of certain Dirichlet series".
- Wright, E. M. 4043: Rotatable partitions. 5120: A relationship between two sequences. III. 5179: Stacks.
- Wright, J. B. 75: (with Thatcher, J. W.) Generalized finite automata theory with an application to a decision problem of second-order logic.
- Wright, J. D. Maitland. 4632: An extension theorem and a dual proof of a theorem of Gleason.
- Wright, Perrin. 4799: A uniform generalized Schoenflies theorem.
- Wu, H. 468: Normal families of holomorphic mappings.
- Wu, M. Y. 3854: (with Desoer, C. A.) Stability of multiple-loop feedback linear time-invariant systems.
- Wu, Ta-sun. 2209: Two homomorphic but nonisomorphic minimal sets. 4801: Homomorphisms in topological dynamics.
- Wulbert, D. E. 4563: (with Blatter, J. and Morris, P. D.) Continuity of the set-valued metric projection.
- Wulfsberg, Aubrey. 6771: The primitive spectrum of a tensor product of  $C^*$ -algebras.
- Wunderlich, M. C. 1339: Sieve-generated sequences with a limiting distribution property.
- Yackel, James. 1278: (with Graver, Jack E.) Some graph theoretic results associated with Ramsey's theorem.
- Yacoub, K. R. 471: Expansion of three definite integrals in power series.
- Yadav, B. S. 5595: On a recent theorem of Carleson. II.
- Yaglom, A. M. See Yaglom, A. M.
- Yaglom, I. M. See Yaglom, I. M.
- Yahya, S. M. 6376: Structure of the torsion subgroup of the tensor product  $A \otimes B$  of abelian groups  $A$  and  $B$ .
- Yajima, Kin'ichi. 4774: (with Sakamoto, Yukio and Nagashima, Hidetake) On the sets of points in the ranked space. 4782: (with Sakamoto, Yukio and Nagashima, Hidetake) On compactness in ranked spaces.
- Yalavigi, C. C. 2679: Complex Fibonacci series modulo  $m$ . 5104: Correction to: "A mixed doubles tournament problem".
- Yamada, Miyuki. 2887: Regular semigroups whose idempotents satisfy permutation identities. 2888: Commutative ideal extensions of null semigroups.
- Yamada, Toshihiko. 213: On the Jacobian varieties of Davenport-Hasse curves. 1375: On the Davenport-Hasse curves.
- Yamaguchi, Masae. 4554: Calculus in ranked vector spaces. I, II, III, IV, V, VI.
- Yamaguchi, Seiichi. 3476: (with Adati, Tyuzi) On Riemannian spaces admitting an intersecting field of  $m$ -planes.
- Yamaguti, Kiyosi. 2822: Note on Lie subrings in Malcev rings.
- Yamaguti, Masaya. 1762: (with Nogi, Tatsuo) An algebra of pseudo difference schemes and its application.
- Yamamoto, Tetsuro. 3394: On the eigenvalues of compact operators in a Hilbert space.
- Yamanaka, Takeshi. 1745: A note on the Cauchy problem for equations with polynomial coefficients. 6598: On the uniqueness of solutions of a global Cauchy problem.
- Yamantürk, Yüklüfe. See Argunov, B. I. and Skornjakov, L. A., #5769.
- Yamasaki, Maretsugu. 6108: Remarks on the conditional Gauss variational problem.
- Yamato, Hajime. 3718: Estimating a change in level of a certain non-stationary time series.
- Yanagawa, Takashi. 1042: (with Kakeshita, Shin-ichi) Estimates for scale based on  $U$ -statistics.
- Yandl, A. L. 2214: On a question concerning fixed points.
- Yang, C. H. See Yang, Chao-hui.
- Yang, Chao-hui. 1069: On designs of maximal  $(+1, -1)$ -matrices of order  $n \equiv 2 \pmod{4}$ .
- Yang, Kung-wei. 1962: Completion of normed linear spaces.
- Yang, Ta-lun. 6061: (with Rosenberg, R. M.) On the vibrations of a particle in the plane. 6062: (with Rosenberg, R. M.) On forced vibrations of a particle in the plane.
- Yang En-hao. 3079: Note on the uniqueness of solutions of differential equations.
- Yano, Kentaro. 3466: Tensor fields and connections on cross-sections in the tangent bundle of a differentiable manifold. 3487: (with



- Iahihara, Shigeru) Normal circle bundles of complex hypersurfaces. 2149: (with Ledger, A. J.) Almost complex structures on tensor bundles. 2136: (with Nomizu, Katsumi) Some results related to the equivalence problem in Riemannian geometry. 2137: (with Nomizu, Katsumi) Some results related to the equivalence problem in Riemannian geometry.
- Yap, H. P. 334: Remarks on a paper of U. C. Guha and K. H. Toh: "On CA-class of quasigroups".
- Yağub, Adil. 1417: (with Johnsen, E. C. and Outcalt, D. L.) An elementary commutativity theorem for rings. 4113: (with Moore, H. G. and Pierce, S. J.) Commutativity in rings of zero divisors.
- Yağub, Jill C. D. S. 3442: On the group of projectivities on a line in a finite projective plane.
- Yar, Ali. See Aleksandrov, P. S., #5274.
- Yasuda, Hiroshi. 854: On extended Lie systems. I.
- Yasui, Yoshikazu. 5849: Unions of strong paracompact spaces. II.
- Yates, C. E. M. 6184: Arithmetical sets and retracing functions.
- Yeh, J. 2311: Correction to: "Differentiability of sample functions in Gaussian processes".
- Yeh, Z. 6412: Two aspects of antidifferentiation by substitution.
- Yellott, John I., Jr. 7185: (with Norman, M. Frank) Probability matching.
- Yeung, Shiu-fong. 1059: (with Ling, Chih-bing) On values of roots of monomial-transcendental equations.
- Yi Hyōng-wōn. 5634: A method of solving a system of linear integral equations arising in optimal control theory.
- Ylvisaker, Donald. 2312: A note on the absence of tangencies in Gaussian sample paths.
- Yoeli, M. 107: Generalized direct decompositions of transformation graphs. 3876: Subdirectly irreducible unary algebras.
- Yokoi, Hideo. 2725: On the divisibility of the class number in an algebraic number field.
- Yokota, Ichiro. 6403: Representation ring of Lie group  $F_4$ .
- Yokoyama, Yūichi. 6274: (with Kawahara, Yūsaku) On higher differentials in commutative rings.
- Yoneda, Nobuo. 1445: On Ext and exact sequences.
- Yonghai Baik. 2126: Conharmonic transformations in recurrent and Ricci-recurrent Riemannian spaces.
- Yorke, James A. 524: Extending Liapunov's second method to non-Lipschitz Liapunov functions. 1695: Invariance for ordinary differential equations. 6555: (with Strauss, Aaron) Perturbing asymptotically stable differential equations.
- Yoshida, Mamoru. 5425: (with Kajiwara, Joji) Note on Cauchy-Riemann equation.
- Yoshida, Yukio. 3506: Compactness in ranked spaces. 3507: A remark on Baire's theorem in ranked spaces. 3524: Compactness and completeness in ranked spaces. 6729: (with Washihara, Masako) Remarks on bounded sets in linear ranked spaces.
- Yoshinaga, Kyōichi. 1990: Values of vector-valued distributions.
- Yoshino, Takashi. 2019: On a problem of Bonsall. 4638: Nearly normal operators.
- Yoshizawa, Taro. 525: Existence of a globally uniform-asymptotically stable periodic and almost periodic solution. 3118: (with Kato, Junji) Asymptotic behavior of solutions near integral manifolds.
- Yosida, Kōsaku. 725: ★Functional analysis. 4282: (with Watanabe, Takeshi and Tanaka, Hiroshi) On the pre-closedness of the potential operator.
- Yosida, Setuzō. 3222: Hukuhara's problem with lags.
- Young, Paul R. 5093: An effective operator, continuous but not partial recursive.
- Younglove, J. N. 6909: (with Traylor, D. R.) On normality and pointwise paracompactness.
- Youngs, J. W. T. 3959: (with Ringel, Gerhard) Solution of the Heawood map-coloring problem.
- Yuan, Shuen. 4128: On the theory of  $p$ -algebras and the Amitsur cohomology groups for inseparable field extensions.
- Yudin, A. A. See Judin, A. A.
- Yüksel, Halil. See Vencel', E. S., #5033 and Beckenbach, Edwin and Bellman, Richard, #2925.
- Zabawa, Mieczysław. 4347: On the possibilities of vibration damping in the case of random forcing. 4348: Oscillations of systems with two degrees of freedom under a perturbation by a periodic force of random amplitude and frequency. 4349: The determination of the optimal parameters for a dynamical damper under a kinematic perturbation with random amplitude and frequency.
- Zablockih, N. D. 2070: (with Ektova-Guseva, L. M. and Kasymova, S. S.) Dimensions of manifolds of planar generating Hermitian quadrics and null-planes of Hermitian null-systems in spaces over algebras.
- Zabreiko, P. P. 5738: The spectral radius of Volterra integral operators.
- Zachmanoglou, E. C. 1807: (with Dunninger, D. R.) The condition for uniqueness of solutions of the Dirichlet problem for the wave equation in coordinate rectangles.
- Zacks, S. 4923: Bayes sequential design of fractional factorial experiments for the estimation of a subgroup of pre-assigned parameters.
- Zadeh, L. A. 6131: Probability measures of fuzzy events.
- Zadivaka, K. V. 4357: Investigation of irregularly perturbed differential equations.
- Zagorin, L. E. 1390: The determinant of matrices over a sfield.
- Zaharjan, V. S. 4267: Radial limits and radial variations of the product  $B_2(z; z_k)$ .
- Zaharov, A. A. 678: An estimate of the deviation of continuous periodic functions from de la Vallée Poussin sums. 1872: The norms of trigonometric polynomials. 4492: Asymptotic behavior of Lebesgue functions of linear averages of interpolation polynomials. 5605: The asymptotic behavior of a certain integral of trigonometric polynomials.
- Zaharov, V. K. 3653: (with Sarmanov, O. V.) The law of distribution of the number of runs in a homogeneous Markov chain.
- Zalcev, D. I. 2845: Groups which satisfy a weak minimality condition.
- Zalcev, V. 2187: Some classes of topological spaces and their biocompact extensions.
- Zalceva, G. S. 4331: Certain criteria for the non-oscillation of linear differential operators.
- Zaidman, S. 577: Some non-homogeneous symbols and associated pseudo-differential operators. 3186: Operatori pseudo-differenziali.
- Zajta, Andrzej. 1207: Algebraic objects. 2102: On equivalence of certain definitions of geodesics on surfaces of weak regularity. 2115: Über die Äquivalenz der geometrischen Objekte. 2116: Non-existence of certain concomitants of the singular tensor  $\Lambda_\mu^\alpha$  and its geometrical interpretation. 3467: Über die Skalarkomittanten der geometrischen Objekte.
- Zakai, Moshe. 991: Some moment inequalities for stochastic integrals and for solutions of stochastic differential equations. 992: On the ultimate boundedness of moments associated with solutions of stochastic differential equations.
- Zakon, Elias. 3514: On uniform spaces with quasi-nested base.
- Żakowski, W. 1921: On an infinite system of non-linear singular integral equations in a Euclidean space.
- Zaks, Abraham. 1409: Residue rings of semi-primary hereditary rings.
- Zalcman, Lawrence. 396: Analytic functions and Jordan arcs. 399: Hadamard products of schlicht functions. 3018: ★Analytic capacity and rational approximation. 6448: Null sets for a class of analytic functions. 6790: A note on invariant subspaces.
- Zaleskiĭ, A. E. 2871: The classical groups.
- Zalgaller, V. A. 3444: Convex polyhedra with regular faces. 3449: (with Alipov, Ju. M.) An isoperimetric problem on the maximum of the moment of inertia. 3617: (with Bodin, N. A.) Concavity of certain functions connected with the two-dimensional normal distribution.
- Žaludová, A. H. 1187: (with Režný, Z. and Ulřich, M.) A survey of some recent Czechoslovak work in automatic statistical process control.
- Zama, Nobuo. 76: A generalization of algorithms and one of its applications. I.
- Zamanov, T. A. 4372: Differential equations with retarded argument in a Banach space.
- Zambelli, Vittoria. 3969: Operatori di tipo centrale su un reticolo completo.
- Zame, Alan. 4456: On the equivalence of two modes of distribution of a sequence. 6639: Almost convergence and well-distributed sequences.

- Zames, G. 5044: (with Falb, P. L.) Stability conditions for systems with monotone and slope-restricted nonlinearities.
- Zamfirescu, Tudor. 6835: Familles de corps associés à un corps convexe. 6836: Sur quelques questions de continuité liées à la réductibilité des corps convexes. 6837: Conditions nécessaires et suffisantes pour la réductibilité des voisinages des corps convexes.
- Zander, Helmut. 6485: Holomorphe Faserräume.
- Zanella, Angelo. 3685: ★Sulla distribuzione della variabile  $t$  non centrale a più dimensioni in relazione ad un problema di decisione multipla.
- Zangwill, Willard I. 5029: A decomposable nonlinear programming approach.
- Zaplina, A. T. 1796: (with Daleckii, Ju. L.) Integrals over a space of trees connected with non-linear parabolic equations.
- Zaplina, A. T. See Zaplina, A. T.
- Zappa, Guido. 2862: Sulle  $S$ -partizioni semistrette di Hall nei gruppi finiti metanilpotenti.
- Zarantonello, Eduardo H. 3187: Differentioida. 4637: The closure of the numerical range contains the spectrum.
- Zaremba, S. K. 3739: Good lattice points in the sense of Hlawka and Monte-Carlo integration.
- Zarićka, Z. V. 4472: The representation of certain functions of two variables in the form of a limit of a sequence of operators.
- Zarif, Ju. I. 3806: (with Jurčenko, A. S.) The solvability of a certain nonlinear boundary value problem.
- Zariški, Oscar. 5222: Exceptional singularities of an algebroid surface and their reduction.
- Zarnecki-Bialy, Ewa. 1232: Certain non-standard concept of consequence.
- Zarnke, C. R. 2680: (with Williams, H. C.) A report on prime numbers of the forms  $M = (6a+1)2^{2m-1} - 1$  and  $M' = (6a-1)2^{2m} - 1$ .
- Zassenhaus, H. 1506: What makes a loop a group? 2720: Ein Algorithmus zur Berechnung einer Minimalbasis über gegebener Ordnung. 5191: The group of an equation. 6319: Über die Äquivalenz ganzzahliger Darstellungen. 2863: (with Hochmann, K. and Roquette, P.) A cohomological characterization of finite nilpotent groups.
- Zavalinskii, S. T. 1729: The concept of stability with respect to a generalized perturbation. 1744: Stability of generalized processes. I, II.
- Zav'jalov, O. I. See Jost, Res. #6090.
- Zbořák, I. N. 6547: The asymptotic equivalence of the solutions of certain linear systems of differential equations.
- Ždanevič, V. F. 1797: Variational methods in the theory of optimal processes.
- Zecca, Pasquale. 4432: Su un problema al contorno per le equazioni  $\Delta u + \lambda u = 0$ .
- Zeel', É. O. 3741: Lacunary algebraic interpolation.
- Zehnder, C. A. 2413: (with Kunzi, Hans P. and Tzschach, H. G.) ★Numerical methods of mathematical optimization, with ALGOL and FORTRAN programs.
- Zeitlin, David. 146: Power identities for sequences defined by  $W_{n+2} = dW_{n+1} - cW_n$ .
- Żelazko, W. 4620: A characterization of multiplicative linear functionals in complex Banach algebras. 4621: (with Hirschfeld, R. A.) On spectral norm Banach algebras. 1998: (with Kahane, J.-P.) A characterization of maximal ideals in commutative Banach algebras.
- Zelenko, L. B. 1686: Letter to the editor. 6900: Defect index and spectrum of a self-adjoint system of first order differential equations.
- Zelinka, Bohdan. 43: Sur le  $PS$ -isomorphisme des langues. 102: A remark on infinite edge-disjoint systems of paths in a graph. 3881: Sur les langues absolument non adéquates. 3963: A contribution to my article: "Introducing an orientation into a given non-directed graph". 6207: Erratum: "A contribution to my article 'Introducing an orientation into a given non-directed graph'".
- Zeller, Karl. 387: (with Beekmann, W.) Singularitäten stetiger analytischer Funktionen. 2444: (with Locher, Franz) Approximationsgüte und numerische Integration.
- Zelobenko, D. P. 2906: The analysis of irreducibility in the class of elementary representations of a semisimple complex Lie group.
- Zeman, J. Jay. 1225: A system of implicit quantification.
- Zemanian, A. H. 3284: (with Pandey, J. N.) Complex inversion for the generalized convolution transformation.
- Zerner, M. 2938: Intégration dans les espaces vectoriels de dimension infinie. 575: (with Trèves, François) Zones d'analyticité des solutions élémentaires.
- Ževlakov, K. A. 1423: The lower nil-radical of alternative rings. 1424: Nil-ideals of an alternative ring satisfying a maximal condition. 1425: Letter to the editor. 1426: Alternative and Jordan rings.
- Zezula, R. 6025: Numerische Stabilität eines Algorithmus zur Berechnung des Eigenparameters eines Matrizenoperators mit Hilfe der Reduktionsmethode und der Banachschen Iteration.
- Zheng Shao-lian. See Cheng Shao-lian.
- Zidenberg, H. 2191: (with Semadeni, Z.) On preordered topological spaces and increasing semicontinuous functions.
- Zidkov, E. P. 5637: (with Ososkov, G. A.) The solution of nonlinear integral equations through the introduction of a continuous parameter.
- Ziegler, Zvi. 1539: On the characterization of measures of the cone dual to a generalized convexity cone. 1854: (with Karlin, Samuel) Chebyshevian spline functions.
- Zieschang, Heiner. 4803: (with Burde, Gerhard) Neuwirthsche Knoten und Flächenabbildungen.
- Zijaudinova, D. A. 7176: (with Rubinov, A. M.) Minimization of sub-linear functionals on convex compacta of metrizable locally convex spaces.
- Žikov, V. V. 4381: A certain problem of Bochner and von Neumann.
- Zima, K. 6572: Sur la continuité des solutions d'une équation différentielle fonctionnelle en fonction d'un paramètre.
- Zin, Giovanni. 3828: Sulla meccanica aleatoria.
- Zinn-Justin, Nicole. 196: Dérivations dans les corps et anneaux de caractéristique  $p$ .
- Žitomirskii, Ja. I. 1767: Classes of uniqueness and nonuniqueness of the solution of the Cauchy problem for a second-order equation. 1794: Exact classes of uniqueness of solution of the Cauchy problem for second order equations.
- Živanović, Zarko. 813: Certaines inégalités relatives au triangle.
- Žičenko, A. B. 6285: (with Šafarevič, I. R.; Averbuh, B. G.; Vainberg, Ju. R.; Manin, Ju. I.; Moisezon, B. G.; Tjurina, G. N. and Tjurin, A. N.) ★Algebraische Flächen.
- Zizler, Václav. 3356: On the differentiability of mappings in Banach spaces.
- Zmorovič, V. A. 6465: (with Ačilov, H.) Extrema of certain functionals defined on the class of  $C$ -functions in the disk  $|z| < 1$ .
- Žmud', É. M. 5310: Structure-theoretic properties of the kernels of homomorphisms of irreducible representations of finite groups. I.
- Znám, Štefan. 3946: (with Bošák, Jura and Kotaig, Anton) Strongly geodesic graphs.
- Zolezzi, Tullio. 2548: Teoremi di esistenza nella teoria dei controlli ottimi in dimensione finita.
- Zolin, A. F. 5533: An error estimate in the solution of the Dirichlet problem by the least squares method.
- Zolotarev, Ju. G. 3110: (with Alimžanova, R. M.) The invariance of the rotation numbers of a certain system of differential equations. 3111: (with Alimžanova, R. M.) The transformation of analytic systems of differential equations with quasi-periodic coefficients.
- Zolotarev, V. M. 961: A generalization of the Lindeberg-Feller theorem. 5914: Some remarks on multidimensional inequalities of Bernstein-Kolmogorov type.
- Zolotareva, E. V. 1782: On the Dirichlet problem for certain elliptic systems of second order.
- Zonneveld, J. A. 2450: Periodic solutions of the Van der Pol equation.
- Zorič, V. A. 5382: Admissible order of growth of the characteristic of quasiconformality in M. A. Lavrent'ev's theorem.
- Zsidó, László. 5612: Une variante d'un résultat de M. Varopoulos. 5902: Sur les processus fortement stationnaires ergodiques.
- Zubakin, A. M. 4511: An analog of the Steinhaus theorem.
- Zubieta, Gonzalo. 6425: Differential notation for set functions.
- Zuckerman, H. S. 810: (with Niven, Ivan) Lattice points and polygonal areas.
- Zuev, I. V. 6856: Second order cylinders of biaxial space.
- Zuhovickii, S. I. 2521: (with Avdeeva, L. I.) ★Linear and convex programming. 2522: (with Avdeeva, L. I.) ★Linear and convex programming.

# KEY INDEX

- programming. 2523: (with Avdeeva, L. I.) ★Linear and convex programming.
- Zukhovitskiy, S. I. See Zuhovickii, S. I.
- Zuk, V. V. 4493: The question of approximating periodic functions by linear summation methods for Fourier series. 5591: The approximation of periodic functions by linear approximation methods.
- Zukov, V. A. 758: A proof of the theorem on the existence of the total differential of functions of class  $W_{p,3}$ .
- Zukova, S. A. 3736: (with Djad'kin, I. G.) The formulation of a problem for the Schrödinger equation and an algorithm for its solution by the Monte Carlo method.
- Zukovskii, V. I. 5495: Conditional stability on a given time interval.
- Zund, J. D. 4755: Topological aspects of the Bel-Petrov classification. 6875: (with Levine, Jack) Sur la caractéristique d'Euler-Poincaré et les classes de Pontrjagin pour quelques variétés riemanniennes de signature quelconque.
- Zverkin, A. M. 1726: The connection between boundedness and sta-

- bility of solutions of linear systems with an infinite number of degrees of freedom. 4373: The completeness of a Floquet type system of solutions for equations with retardation.
- Zverkina, T. S. 628: A new class of finite difference operators. 535: (with Gorbunov, A. D.) The solution of decomposable differential-difference equations.
- Zverovii, E. I. 5405: (with Litvinchuk, G. S.) Boundary value problems with shift for analytic functions, and singular functional equations.
- Zweifel, Paul F. 1140: (with Case, Kenneth M.) ★Linear transport theory.
- Zybin, L. M. 4473: On conditions for the convergence of a sequence of linear operators of class  $S_m$ .
- Zybina, L. D. 1288: The relations which define the ordering of certain linear functions.
- Zygmund, A. 6133: Mary Weiss: December 11, 1930-October 8, 1966.
- Zylev, V. B. 2069:  $G$ -composedness and  $G$ -complementability.

# KEY INDEX

- Academician Anatolii Ivanovič Maľ'cev. 22: Academician Anatolii Ivanovič Maľ'cev.
- Académie des Sciences: Troisième Centenaire (1666-1966). 3587: ★Académie des Sciences: Troisième Centenaire (1666-1966). Tomes 1, 2.
- Actes de la Société helvétique des sciences naturelles. 2560: ★Verhandlungen der Schweizerischen Naturforschenden Gesellschaft (146. Versammlung in Solothurn, 1966): Wissenschaftlicher Teil.
- Algebra. 6139a: ★Séminaire P. Dubreil, M.-L. Dubreil-Jacotin, L. Lesieur et C. Pisot. 20e année: 1966/67. Algèbre et théorie des nombres. Fascicule 1: Exposés 1 à 10. 6139b: †★Séminaire P. Dubreil, M.-L. Dubreil-Jacotin, L. Lesieur et C. Pisot. 20e année: 1966/67. Algèbre et théorie des nombres. Fascicule 2: Exposés 11 à 21 et index cumulatif.
- Algebraic number theory and representations. 9: ★Proceedings of the Steklov Institute of Mathematics. No. 80 (1965): Algebraic number theory and representations.
- Algèbre commutative. 1435: ★Anneaux de Gorenstein, et torsion en algèbre commutative.
- American Mathematical Society Translations. 5: ★American Mathematical Society Translations. Series 2, Vol. 68: Ten papers on differential equations and functional analysis. 6: ★American Mathematical Society Translations. Series 2, Vol. 69: Seven papers on algebra. 1213: ★American Mathematical Society Translations. Series 2, Vol. 70: 31 invited addresses (8 in abstract) at the International Congress of Mathematicians in Moscow, 1966. 3882: ★American Mathematical Society Translations. Series 2, Vol. 71: Thirteen papers on algebra, topology, complex variables and linear programming. 5067: ★American Mathematical Society Translations. Series 2, Vol. 72: Fifteen papers on analysis.
- Anneaux de Gorenstein, et torsion en algèbre commutative. 1435: ★Anneaux de Gorenstein, et torsion en algèbre commutative.
- Application of Mathematics to Problems in Theoretical Physics (Cargèse Lectures, 1965). 1125: ★Cargèse Lectures in Theoretical Physics: Application of mathematics to problems in theoretical physics.
- Atti della Società elvetica di scienze naturali. 2560: ★Verhandlungen der Schweizerischen Naturforschenden Gesellschaft (146. Versammlung in Solothurn, 1966): Wissenschaftlicher Teil.
- Bibliographie des publications de Pierre Sergescu. 5069: Bibliographie des publications de Pierre Sergescu.
- Bibliography. 3856: Theory of stability and control for distributed parameter systems: A bibliography. 6154: Bibliography of the works of A. M. Ostrowski.
- Bibliography of the scientific works of I. N. Vekua. 1222: Bibliography of the scientific works of I. N. Vekua.
- Boundary value problems of mathematical physics. 6143: ★Proceedings of the Steklov Institute of Mathematics, No. 92 (1966): Boundary value problems of mathematical physics. IV.

- Cargèse Lectures in Theoretical Physics: Application of mathematics to problems in theoretical physics. 1125: ★Cargèse Lectures in Theoretical Physics: Application of mathematics to problems in theoretical physics.
- Category. 6341: ★Reports of the Midwest Category Seminar. II. Colloques Internationaux du Centre National de la Recherche Scientifique, No. 165. 6096: ★Programmation en mathématiques numériques.
- Dictionaries. 11: ★James & James mathematics dictionary (multilingual edition).
- Differential equations. 3883: ★Problems in the theory and history of differential equations.
- Fluid mechanics. 3807: ★The mathematical problems in fluid mechanics.
- General systems theory. 1196: ★General systems theory.
- Geometry. 806: ★Third Interuniversity Scientific Conference on Problems in Geometry (Kazan, September 14-19, 1967). Abstracts of reports.
- Graph theory and theoretical physics. 6206: ★Graph theory and theoretical physics.
- Handbook of mathematical functions. 2399: Table errata. 2400: Table errata.
- History of mathematics. 3888: ★History of national mathematics in four volumes. Vol. II. 1801-1917.
- History of national mathematics in four volumes. Vol. II. 1801-1917. 3888: ★History of national mathematics in four volumes. Vol. II. 1801-1917.
- Hung-ching Chow sixty-fifth anniversary volume. 7: ★Hung-ching Chow sixty-fifth anniversary volume.
- Integro-differential equations. 1939: ★Studies in integro-differential equations in Kirghizia. No. 1. 4527: ★Studies in integro-differential equations in Kirghizia. No. 3. 5639: ★Studies in integro-differential equations in Kirghizia. No. 2.
- James & James mathematics dictionary. 11: ★James & James mathematics dictionary (multilingual edition).
- Kourov notebook. Unsolved problems in the theory of groups. 1448: ★Kourov notebook. Unsolved problems in the theory of groups.
- La filosofia della matematica. 27: ★La filosofia della matematica.
- Lettres de Bouguer à Euler. 6151: Lettres de Bouguer à Euler.
- Local Fields, Proc. Conf. (Driebergen, 1966). 3885: ★Proceedings of a Conference on Local Fields.
- Markov Processes and Potential Theory, Proc. Sympos. 3647: ★Markov processes and potential theory.
- Materials of a scientific conference on mathematics and mechanics. 8: ★Materials of a scientific conference on mathematics and mechanics.
- Mathematical papers of Isaac Newton. 3901: ★The mathematical papers of Isaac Newton. Vol. II: 1667-1670.
- Mathematical problems in fluid mechanics. 3807: ★The mathematical problems in fluid mechanics.



- Mathematical tables. 7065: ★The probability integral.
- Mathematische Hilfsmittel des Ingenieurs. Teil III. 7115: ★Mathematische Hilfsmittel des Ingenieurs. Teil III.
- Memoirs of the American Mathematical Society. 2559: ★Memoirs of the American Mathematical Society, No. 81.
- Modern mathematics conference. 5068: ★Modern mathematics conference.
- NATO Advanced Study Institute. 6206: ★Graph theory and theoretical physics.
- Nonlinear vibration problems. 4341: ★Nonlinear vibration problems. Vol. 8.
- NUFFIC Summer School (Driebergen, 1966). 3885: ★Proceedings of a Conference on Local Fields.
- Number theory. 6139a: ★Séminaire P. Dubreil, M.-L. Dubreil-Jacotin, L. Lesieur et C. Pisot. 20e année: 1966/67. Algèbre et théorie des nombres. Fascicule 1: Exposés 1 à 10. 6139b: †★Séminaire P. Dubreil, M.-L. Dubreil-Jacotin, L. Lesieur et C. Pisot. 20e année: 1966/67. Algèbre et théorie des nombres. Fascicule 2: Exposés 11 à 21 et index cumulatif. 6140a: ★Séminaire Delange-Pisot-Poitou. 8e année: 1966/67. Théorie des nombres. Fascicule 1: Exposés 1 à 9. 6140b: ★Séminaire Delange-Pisot-Poitou. 8e année: 1966/67. Théorie des nombres. Fascicule 2: Exposés 10 à 21.
- Oeuvres de Jacques Hadamard. 6158: ★Oeuvres de Jacques Hadamard. Tomes I, II, III, IV.
- Optimal solutions. 7188: ★Seminar: Theory of optimal solutions. No. 1.
- Orthogonal expansions and their continuous analogues. 6141: ★Orthogonal expansions and their continuous analogues.
- Philosophy of Mathematics, Problems in the. 3886: ★The problem of inductive logic.
- Potential theory. 3647: ★Markov processes and potential theory.
- Probability. 4845: ★Séminaire de Probabilités (Université de Strasbourg, Novembre 1966-Février 1967). Vol. I.
- Problem of inductive logic. 3886: ★The problem of inductive logic.
- Problems in the theory of electronic digital computers, No. 3 (Seminar). 3799: ★Problems in the theory of electronic digital computers, No. 3 (Seminar).
- Problems in the theory and history of differential equations. 3883: ★Problems in the theory and history of differential equations.
- Proc. Conf. Local Fields (Driebergen, 1966). 3885: ★Proceedings of a Conference on Local Fields.
- Proc. Conf. Orthogonal Expansions and their Continuous Analogues (Edwardsville, Ill., 1967). 6141: ★Orthogonal expansions and their continuous analogues.
- Proc. Internat. Colloq. in the Philosophy of Mathematics (London, 1965). Vol. 2. 3886: ★The problem of inductive logic.
- Proceedings of the Steklov Institute of Mathematics. No. 80 (1965): Algebraic number theory and representations. 9: ★Proceedings of the Steklov Institute of Mathematics. No. 80 (1965): Algebraic number theory and representations. 6142: ★Proceedings of the Steklov Institute of Mathematics, No. 89 (1967): Theory and applications of differentiable functions of several variables. Part II. 6143: ★Proceedings of the Steklov Institute of Mathematics, No. 92 (1966): Boundary value problems of mathematical physics. IV.
- Proc. Sympos. Markov Processes and Potential Theory (Madison, Wis., 1967). 3647: ★Markov processes and potential theory.
- Proceedings of Symposia in Pure Mathematics. Vol. X: Singular integrals. 6144: ★Proceedings of Symposia in Pure Mathematics. Vol. X: Singular integrals.
- Programmation en Mathématiques Numériques (Actes Colloq. Internat. C.N.R.S. No. 165, Besançon, 1966). 6006: ★Programmation en mathématiques numériques.
- Quadratic forms. 4014: ★Studien zur Theorie der quadratischen Formen.
- Reports of the Midwest Category Seminar. 6341: ★Reports of the Midwest Category Seminar. II.
- Scientific conference. 8: ★Materials of a scientific conference on mathematics and mechanics. 806: ★Third Interuniversity Scientific Conference on Problems in Geometry (Kazan, September 14-10, 1967). Abstracts of reports. 1214: ★A scientific conference of young scientists of the Lithuanian SSR, working in the domain of physics, mathematics and cybernetics, dedicated to the fiftieth anniversary of the great October socialist revolution (December 6-8, 1967).
- Séminaire d'algèbre commutative. 1435: ★Anneaux de Gorenstein, et torsion en algèbre commutative.
- Séminaire Bourbaki. Vol. 1966/1967: Exposés 313-330. 10: ★Séminaire Bourbaki. Vol. 1966/1967: Exposés 313-330.
- Séminaire Delange-Pisot-Poitou. 6140a: ★Séminaire Delange-Pisot-Poitou. 8e année: 1966/67. Théorie des nombres. Fascicule 1: Exposés 1 à 9. 6140b: ★Séminaire Delange-Pisot-Poitou. 8e année: 1966/67. Théorie des nombres. Fascicule 2: Exposés 10 à 21.
- Séminaire P. Dubreil, M.-L. Dubreil-Jacotin, L. Lesieur et C. Pisot. 6139a: ★Séminaire P. Dubreil, M.-L. Dubreil-Jacotin, L. Lesieur et C. Pisot, 20e année: 1966/67. Algèbre et théorie des nombres. Fascicule 1: Exposés 1 à 10. 6139b: †★Séminaire P. Dubreil, M.-L. Dubreil-Jacotin, L. Lesieur et C. Pisot, 20e année: 1966/67. Algèbre et théorie des nombres. Fascicule 2: Exposés 11 à 21 et index cumulatif.
- Séminaire de Probabilités (Université de Strasbourg, Novembre 1966-Février 1967). 4845: ★Séminaire de Probabilités (Université de Strasbourg, Novembre 1966-Février 1967). Vol. I.
- Séminaire Samuel. 1435: ★Anneaux de Gorenstein, et torsion en algèbre commutative.
- Seminar. 3799: ★Problems in the theory of electronic digital computers, No. 3 (Seminar).
- Seminar: Theory of optimal solutions. No. 1. 7188: ★Seminar: Theory of optimal solutions. No. 1.
- Singular Integrals (Proc. Sympos. Pure Math., Chicago, Ill., 1966). 6144: ★Proceedings of Symposia in Pure Mathematics. Vol. X: Singular integrals.
- Stochastic differential equations. 7011: ★Stochastic differential equations.
- Stochastic optimization and control. 7198: ★Stochastic optimization and control.
- Studien zur Theorie der quadratischen Formen. 4014: ★Studien zur Theorie der quadratischen Formen.
- Studies in integro-differential equations in Kirghizia. 1939: ★Studies in integro-differential equations in Kirghizia. No. 1. 4527: ★Studies in integro-differential equations in Kirghizia. No. 3. 5638: ★Studies in integro-differential equations in Kirghizia. No. 2.
- Studies in mathematical statistics: Theory and applications. 2346: ★Studies in mathematical statistics: Theory and applications.
- Symposia on theoretical physics and mathematics, Vol. 6. 6075: ★Symposia on theoretical physics and mathematics, Vol. 6.
- Sympos. Math. Statist. (Budapest, 1964). 2346: ★Studies in mathematical statistics: Theory and applications.
- Systems theory. 1196: ★General systems theory.
- Tables. 1653: ★Praktische Funktionenlehre. Vierter Band: Elliptische Integralgruppen und Jacobische elliptische Funktionen im Komplexen. 2402: ★Tables of the incomplete beta-function. 7065: ★The probability integral.
- Tables of the incomplete beta-function. 2402: ★Tables of the incomplete beta-function.
- Theoretical physics. 6206: ★Graph theory and theoretical physics.
- Third Interuniversity Scientific Conference on Problems in Geometry (Kazan, September 14-10, 1967). Abstracts of reports. 806: ★Third Interuniversity Scientific Conference on Problems in Geometry (Kazan, September 14-10, 1967). Abstracts of reports.
- Unsolved problems in the theory of groups. 1448: ★Kourov notebook. Unsolved problems in the theory of groups.
- Verhandlungen der Schweizerischen Naturforschenden Gesellschaft. 2560: ★Verhandlungen der Schweizerischen Naturforschenden Gesellschaft (146. Versammlung in Solothurn, 1966): Wissenschaftlicher Teil.
- Young scientists of the Lithuanian SSR. 1214: ★A scientific conference of young scientists of the Lithuanian SSR, working in the domain of physics, mathematics and cybernetics, dedicated to the fiftieth anniversary of the great October socialist revolution (December 6-8, 1967).

## SUBJECT CLASSIFICATION

This is a list of headings, with code numbers, under which articles were classified during the first half of 1969. The headings in capital letters are identical with those appearing in the monthly issues.

### 00. GENERAL

- 00 General mathematics
- 04 Collections of papers: Proceedings of conferences of general interest, translation volumes, etc. (See also 01.60)
- 20 General bibliographies
- 30 Dictionaries and other general reference works
- 50 Methodology and philosophy of mathematics

### 01. HISTORY AND BIOGRAPHY

- 01 General histories, source books
- 02 Primitive
- 05 Pre-Greek, Babylonian, Egyptian
- 08 Greek
- 10 Far East
- 12 Islam
- 15 Medieval
- 18 15th and 16th centuries, Renaissance
- 20 17th century
- 25 18th century
- 30 19th century
- 35 20th century
- 40 Contemporary
- 50 Biographies, obituaries, personalia
- 60 Collected or selected works; reprintings or translations of classics

### 02. LOGIC AND FOUNDATIONS

- 10 Classical deductive systems, general
- 12 Propositional calculus, two-valued
- 16 Predicate calculus
- 18 Classical proof theory
- 20 Non-classical logic, general
- 23 Intuitionism
- 25 Many-valued logic
- 27 Modal logic
- 30 Formal syntax and linguistics, general
- 32 Higher-order languages
- 35 Infinitary languages
- 38 Languages with additional quantifiers
- 40 Algebraic logic, general
- 42 Boolean algebras, lattices, topologies
- 45 Algebra of relations
- 48 Cylindric and polyadic algebras
- 50 Model theory, general
- 52 Semantics and metamathematics, categoricity
- 54 Axiomatics and applications, decision methods
- 57 Non-standard models
- 60 Axiomatic set theory, general
- 63 Formalization of set theory
- 65 Consistency, independence, existence
- 68 Measurability, accessibility, other special questions
- 70 Recursive function theory, general
- 72 Arithmetic and recursive analysis
- 74 Undecidability
- 75 Unsolvability in mathematical systems
- 77 Hierarchies
- 80 Algorithms and machines, general
- 82 Turing, Post, Thue schemes
- 85 Combinatory logic
- 88 Abstract automaton theory (See also 94.40)

### 04. SET THEORY

- 15 Point sets
- 20 Relations (See also 08.20)

- 30 Transfinite numbers
- 40 Descriptive set theory; Borel classifications, Suslin schemes, etc. (See also 28.10)
- 60 Combinatorial (See also 05.04)

### 05. COMBINATORIAL THEORY, GRAPH THEORY

- 04 Combinatorial choice problems; subsets, representatives
- 05 Factorials, binomial coefficients, combinatorial functions
- 10 Combinatorial enumeration problems, generating functions
- 15 Combinatorial inequalities
- 20 Block designs (See also 62.61)
- 22 Difference sets (number-theoretic, group-theoretic, etc.)
- 24 Orthogonal arrays, Latin squares
- 25 Matrices
- 27 Finite geometries (See also 50.60)
- 30 Other designs, configurations
- 35 Matroids, geometric lattices
- 40 Graphs, general theory
- 45 Trees
- 50 Topological graph theory, embedding (See also 55.10)
- 55 Chromatic theory of graphs and maps
- 60 Directed graphs (digraphs)
- 62 Graphs and groups
- 65 Enumeration of graphs and maps

### 06. ORDER, LATTICES, ORDERED ALGEBRAIC STRUCTURES

- 10 Total order
- 20 Partial order
- 30 Lattices, generalizations
- 35 Complemented lattices, generalizations
- 40 Modular lattices, continuous geometries, generalizations
- 50 Distributive lattices, generalizations
- 60 Boolean algebras and rings
- 65 Order topologies (See also 54.56)
- 70 Ordered semigroups, other generalizations of groups
- 75 Ordered groups
- 78 Ordered abelian groups
- 80 Ordered linear spaces (See also 46.06)
- 85 Ordered rings, algebras, modules (See 12.70 for ordered fields)
- 90 Other ordered algebraic structures

### 08. GENERAL MATHEMATICAL SYSTEMS

- 10 Concrete categories, structures (See also 18.10)
- 20 Laws of composition
- 30 Universal algebra, general algebraic structures
- 40 Other

### 10. THEORY OF NUMBERS

- 01 General books
- 02 Tables
- 03 Computations
- 05 Elementary number theory, general
- 06 Congruences, residues
- 07 Special functions and sequences
- 08 Elementary prime number theory
- 09 Expansions and algorithms
- 10 Diophantine equations, general
- 11 Linear and quadratic equations
- 12 Cubic and quartic equations
- 13 Equations of higher degree
- 14 Local (p-adic) theory
- 15 Forms, general
- 16 Quadratic, Hermitian forms
- 17 Forms of degree  $\geq 3$
- 18 Multilinear forms

# SUBJECT CLASSIFICATION

- 20 Modular functions and forms, automorphic functions (See also 20.65, 30.49, 32.65)
  - 21 Modular group, modular functions
  - 22 Automorphic forms, one variable
  - 23 Several variables
  - 25 Geometry of numbers
  - 30 Diophantine approximation
  - 31 Linear approximation, continued fractions
  - 32 Algebraicity, irrationality and transcendence
  - 33 Distribution modulo 1, normal numbers
  - 34 Analytic and  $p$ -adic theory
  - 40 Analytic multiplicative theory, general
  - 41 Analytic tools (Zeta- and  $L$ -functions, exponential sums, etc.)
  - 42 Distribution of the integers with specified multiplicative structure (including primes)
  - 43 Number-theoretic functions
  - 45 Analytic additive theory, general
  - 46 Sums of powers, generalizations
  - 47 Additive questions concerning primes
  - 48 Partitions, generating functions
  - 49 Sequences
  - 50 Probabilistic number theory
  - 55 Combinatorial problems in number theory (See also 05.00)
  - 60 Sequences of integers, general
  - 61 Recursive and other special sequences
  - 62 Addition of sequences, basis, essential components, etc.
  - 63 Density of special sequences
  - 64 Sieves
  - 65 Algebraic number theory, general (See also 12.50)
  - 66 Individual algebraic number fields (quadratic, cubic, cyclotomic, Kummer, etc.)
  - 67 Local theory (valuations, finite extensions of  $p$ -adic fields)
  - 68 Class field theory, complex multiplication
  - 69 Arithmetic of general rings
  - 75 Arithmetic theory of algebraic objects
  - 76 Polynomials
  - 77 Finite fields, power series fields
  - 78 Valued fields, algebraic function fields
  - 79 Matrices
  - 80 Decidability, other logical questions
12. FIELDS AND POLYNOMIALS
  - 10 Division rings (See also 16.46)
  - 20 Finite fields (See also 10.77)
  - 25 Polynomials over finite fields
  - 30 Polynomials
  - 40 Galois theory (See also 12.80, 13.70, 16.70)
  - 45 Algebraic extension fields
  - 50 Algebraic number fields (See also 10.65)
  - 70 Valuations, topological fields, ordered fields (See also 10.78, 13.98)
  - 75 Transcendental extension fields
  - 78 Algebraic function fields (See also 10.78, 14.35)
  - 80 Differential and difference algebra; differential Galois theory
13. COMMUTATIVE ASSOCIATIVE RINGS AND ALGEBRAS (See also 16.00)
  - 10 General theory
  - 15 Integral domains, unique factorization domains
  - 20 Ideal theory
  - 25 Chain conditions; Artinian rings, Noetherian rings
  - 30 Radical theory
  - 40 Modules, representation
  - 50 Structure, classification
  - 60 Automorphisms, derivations
  - 70 Galois theory
  - 80 Extension theory
  - 90 Homological methods
  - 93 Rings of polynomials, formal power series
  - 95 Local rings
  - 98 Valuations (See also 12.70)
14. ALGEBRAIC GEOMETRY
  - 01 Algebraic varieties in real and complex spaces, classical algebraic geometry
  - 05 Algebraic geometry over abstract fields and rings, general
  - 08 Foundational questions
  - 10 Theories of equivalence
  - 15 Transformations and correspondences
  - 18 Singularities
  - 20 Algebraic curves, surfaces and special varieties
  - 35 Algebraic function fields (See also 10.78, 12.78)
  - 40 Arithmetic properties of varieties
  - 45 Rationality questions
  - 47 Weil conjectures, Riemann hypotheses
  - 48 Zeta functions for varieties (including mod  $p$  questions)
  - 49 Geometric analogues of arithmetic questions
  - 50 Group varieties (algebraic groups), abstract analytic groups
  - 51 Abelian varieties
  - 52 Abstract derivations and differentials
  - 55 Sheaf-theoretic and homological methods
15. LINEAR AND MULTILINEAR ALGEBRA, MATRIX THEORY
  - 05 Vector spaces, linear dependence, rank
  - 10 Linear equations
  - 15 Matrix inversion, generalized inverses
  - 20 Determinants, permanents, other special matrix functions
  - 25 Eigenvalues and eigenvectors
  - 30 Canonical forms, reductions, classification
  - 35 Matrix equations and identities
  - 38 Commutativity
  - 40 Algebraic systems of matrices (See also 16.48, 20.75)
  - 45 Matrices over special rings (quaternions, finite fields, etc.)
  - 48 Matrices of integers (See also 10.79)
  - 50 Linear inequalities
  - 55 Inequalities involving eigenvalues and eigenvectors
  - 58 Miscellaneous inequalities involving matrices
  - 60 Positive matrices
  - 65 Stochastic matrices
  - 70 Quadratic and bilinear forms, inner products
  - 75 Clifford algebras
  - 80 Multilinear algebra, tensor products
  - 85 Vector and tensor algebra, theory of invariants
  - 90 Exterior algebra, Grassman algebras
16. ASSOCIATIVE RINGS AND ALGEBRAS (See also 13.00)
  - 10 General theory
  - 15 Integral domains, unique factorization domains (non-commutative)
  - 20 Ideal theory
  - 25 Chain conditions; Artinian rings, Noetherian rings
  - 30 Radical theory
  - 32 Nil, nilpotent, radical rings
  - 40 Modules, representation
  - 42 Primitive rings
  - 44 Semisimple rings
  - 46 Simple rings, division rings
  - 48 Matrix rings
  - 49 Rings with polynomial identity
  - 50 Structure, classification
  - 53 Prime rings
  - 55 Rings with annihilator conditions
  - 58 Regular rings
  - 58 Rings with involution
  - 60 Automorphisms, derivations
  - 70 Galois theory
  - 80 Extension theory
  - 90 Homological methods
  - 94 Finite rings
  - 96 Semirings, other generalizations of rings (See also 05.00)
  - 98 Topological rings



17. NONASSOCIATIVE RINGS AND ALGEBRAS

- 10 General
- 20 Power associative
- 30 Lie (See also 22.80)
- 40 Jordan
- 50 Alternative
- 60 Other

18. CATEGORY THEORY, HOMOLOGICAL ALGEBRA

- 10 Abstract categories and functors (See also 03.10)
- 15 Abelian categories
- 20 Homological algebra

20. GROUP THEORY AND GENERALIZATIONS

- 08 Varieties of groups
- 10 Group presentations; free groups, generators, relations
- 15 Periodic groups
- 18 Groups with local properties
- 20 Groups acting on sets, permutation groups
- 22 Automorphism groups
- 25 Finite group theory
- 27 Structure of groups, classification
- 29 Simple groups
- 30 Abelian groups
- 40 Nilpotent, solvable,  $p$ -groups
- 43 Sylow subgroups,  $\Pi$ -subgroups
- 48 Group extensions
- 50 Homological methods in group theory
- 51 Limits of systems of groups
- 52 General products of groups (including semi-direct, wreath free, amalgamated)
- 54 Special subgroups
- 56 Series of subgroups
- 59 Lattices of subgroups
- 60 Crystallographic and discrete geometric groups
- 65 Modular groups, discrete subgroups of classical groups
- 70 Classical groups (See also 22.55)
- 72 Collineation groups
- 75 Linear groups, general (See also 14.50)
- 80 Representations, characters, group algebras
- 85 Representations of symmetric groups
- 90 Semigroup algebras, representations, characters
- 92 Semigroups, general theory (See also 06.70)
- 93 Semigroups, structure and classification
- 95 Other binary systems; groupoids, quasigroups, loops
- 97 Ternary systems; heaps, semiheaps, heapoids
- 98  $n$ -ary systems (See also 08.00)

22. TOPOLOGICAL GROUPS AND LIE THEORY

- 05 Topological semigroups and other generalizations of groups
- 10 Topological groups
- 20 Locally compact groups (See also 28.75 for Haar measure, 42.50 for LCA groups)
- 40 Transformation groups (See also 54.80, 54.82, 57.47)
- 50 Lie groups
- 55 Classical groups (See also 14.50, 20.70)
- 57 Representations and analysis of classical groups (See also 81.22)
- 60 Representations and analysis, general
- 65 Harmonic analysis on non-abelian groups (See 42.50 for LCA groups)
- 70 Homogeneous spaces, symmetric spaces (See also 53.66, 53.73, 57.45)
- 80 Lie algebras of Lie groups (See also 17.30)
- 90 Other Lie theory

26. FUNCTIONS OF REAL VARIABLES

- 10 Foundations: limits and generalizations, elementary topology of the line

20 Calculus

- 21 Elementary functions
- 30 Continuity and related questions (modulus of continuity, semicontinuity, discontinuities, etc.)
- 35 Classification of real functions; Baire classification of sets and functions (See also 28.00)
- 40 Differentiation, general theory; mean-value theorems (See also 28.16)
- 41 Non-differentiability (non-differentiable functions, points of non-differentiability), discontinuous derivatives
- 43 Generalized derivatives, derivatives of fractional order
- 44 Antidifferentiation
- 45 Denjoy integral, other special integrals
- 46 Integrals of Riemann, Stieltjes and Lebesgue type (See also 28.00)
- 49 Functions of bounded variation, generalizations
- 50 Monotonic functions, generalizations
- 52 Convexity, generalizations
- 54 Fixed-point theorems
- 55 Several variables, implicit function theorems, Jacobians, transformations with several variables
- 56 Length, area, volume
- 60 Polynomials
- 70 Inequalities (of a general and miscellaneous character)
- 80 Real-analytic functions,  $C^\infty$  functions

28. MEASURE AND INTEGRATION

- 10 Classes of sets (Borel fields,  $\sigma$ -rings, etc.), measurable sets, Suslin sets, analytic sets (See also 04.40)
- 13 Real- or complex-valued set functions, contents, measures, outer measures, capacities, etc.
- 16 Abstract differentiation theory, differentiation of set functions (See also 26.40)
- 20 Measurable and non-measurable functions; modes of convergence
- 25 Integration with respect to measures and other set functions
- 30 Integration theory via linear functionals (Radon measures, Daniell integrals, etc.)
- 40 Measures and integrals in product spaces
- 46 Measures and integrals in function spaces, linear spaces; Wiener measure
- 50 Vector-valued measures and integrals, integration of vector-valued functions
- 55 Integration and disintegration of measures, lifting theory
- 60 Measures and integrals with values in general ordered systems
- 65 Measures on Boolean rings, measure algebras
- 70 Measure-preserving transformations, flows (dynamical systems), ergodic theory
- 75 Invariant measures, Haar measure (See also 22.20)
- 80 Length, area, volume; other geometric measure theory

30. FUNCTIONS OF A COMPLEX VARIABLE

- 01 General questions, foundations
- 02 Monogenic properties of complex functions (also polygenic and arcular monogenic functions)
- 09 Inequalities in the complex domain
- 10 Polynomials
- 11 Zeros of polynomials
- 20 Power series
- 21 Behavior on the boundary of convergence. Overconvergence
- 24 Dirichlet series
- 25 Continued fractions
- 28 Analytic continuation
- 30 Sequences and series of analytic functions; uniform convergence, normal families, normal functions
- 35 Integration; integral representations; Cauchy integral, Poisson and Poisson-Stieltjes integrals
- 36 Moment problems; interpolation problems
- 40 Conformal mapping, general theory
- 41 Capacity, harmonic measure
- 42 Univalent functions

# SUBJECT CLASSIFICATION

- 43 Coefficient problems
- 44 Multivalent functions
- 45 Riemann surfaces, uniformization
- 46 Algebraic functions, Abelian integrals
- 47 Quasiconformal mapping
- 49 Automorphic functions and modular functions
- 50 Maximum principle. Schwarz's lemma, Phragmén-Lindelöf theorems
- 52 Extremal problems in the complex domain
- 55 Entire functions, general theory
- 56 Entire functions, representation by Dirichlet series
- 57 Entire functions, growth estimates
- 58 Entire functions, distribution of values
- 60 Meromorphic functions, general theory
- 61 Distribution of values, Picard-type theorems, Nevanlinna theory, defect (deficiency) theory
- 62 Theory of cluster sets, prime ends, boundary behavior
- 65 Bounded functions, positive real part, Blaschke products
- 66 Bounded mean modulus, bounded characteristic
- 67  $H_p$  classes and other restrictions
- 70 Approximation by polynomials and rational functions in the complex domain
- 75 Boundary value problems, Dirichlet problem
- 77 Special boundary value problems; Riemann-Hilbert problem. Inverse boundary problems
- 79 Algebroid functions
- 80 Topological function theory, functions topologically equivalent to analytic mappings
- 81 Generalized analytic mappings. Pseudo-analytic functions of Bers, Vekua, etc.
- 83 Functions of hypercomplex variables and generalized variables (See also 32.80)
- 85 Spaces of analytic functions (See also 46.30)
- 86 Kernel function and applications
- 87 Algebras of analytic functions (See also 46.55)

## 31. POTENTIAL THEORY

- 10 Harmonic functions in the plane
- 11 Harmonic functions, general
- 15 Subharmonic, superharmonic functions
- 20 Boundary value problems, Dirichlet problem
- 21 Capacity and harmonic measure
- 22 Generalized capacity and potential
- 30 Biharmonic and polyharmonic functions and equations
- 35 Poisson's equation
- 50 Axiomatic potential theory

## 32. SEVERAL COMPLEX VARIABLES

- 02 Foundations, general questions
- 05 Polynomials, entire functions
- 10 Power series, formal theory
- 15 Integral representations
- 17 Inequalities
- 20 Domains of holomorphy
- 22 Pseudoconvexity
- 25 Local properties of holomorphic functions
- 27 Removable singularities
- 32 Complex symmetric spaces
- 35 Bergman kernel function
- 40 Analytic manifolds
- 44 Analytic varieties
- 47 Analytic spaces
- 49 Stein spaces
- 50 Analytic sheaves and cohomology theory
- 60 Holomorphic mappings
- 65 Automorphic functions
- 70 Approximation theorems
- 80 Nonarchimedean function theory

## 33. SPECIAL FUNCTIONS

- 04 Number-theoretic functions, special sequences
- 10 Exponential and trigonometric functions

- 15 Gamma and beta functions
- 17 Error function, probability integral
- 19 Elliptic functions and integrals
- 20 Hypergeometric functions, generalizations
- 21  $E$ -functions,  $G$ -functions
- 25 Cylindrical functions; Bessel functions
- 27 Spherical functions; Legendre polynomials and functions, spherical harmonics, ultraspherical polynomials
- 28 Lamé, Mathieu, spheroidal wave functions
- 30 Wave functions
- 32 Gegenbauer functions
- 40 Orthogonal special functions and polynomials (Čebyšev, Hermite, Jacobi, Laguerre, etc.) (See also 42.15)
- 45 Other special functions
- 50 Special functions and Lie groups

## 34. ORDINARY DIFFERENTIAL EQUATIONS

- 02 Solutions in closed form; integration by quadratures; reduction of differential equations
- 04 General existence and uniqueness theorems; continuous dependence of solution on parameter, initial and boundary conditions
- 06 Differential equations in the complex domain
- 10 Analytical theory: series, transformations, transforms, operational calculus, etc.
- 20 Linear equations and systems, general
- 30 Boundary value problems for linear equations: spectral theory, asymptotic behavior of eigenfunctions, distribution of eigenvalues (See also 47.60)
- 36 Nonlinear and multi-point boundary value problems
- 40 Qualitative theory, general
- 41 Limit cycles, singular points
- 42 Zeros, growth, oscillation and comparison of solutions
- 45 Nonlinear oscillations, periodic and almost periodic solutions, integral manifolds, averaging method
- 50 Asymptotic expansions, asymptotic behavior of solutions, turning points
- 51 Stability
- 53 Perturbations
- 54 Singular perturbations; small parameter with highest derivative
- 60 Equations and systems with randomness (See 60.75 for stochastic differential equations)
- 65 Dynamical systems, systems on manifolds
- 70 Differential equations of infinite order
- 75 Functional differential equations: differential-difference equations, equations with retarded argument
- 85 Optimal control problems
- 90 Differential inequalities
- 95 Differential equations in Banach and other abstract spaces

## 35. PARTIAL DIFFERENTIAL EQUATIONS

- 01 Existence and uniqueness theorems, general
- 02 Successive approximations
- 03 Cauchy-Kowalewski theorems, series solutions
- 04 Variational methods, a priori estimates
- 05 Analytic methods; singularities
- 06 Other special methods
- 07 Dependence of solutions on initial and boundary data, parameters
- 09 Geometric theory, characteristics, transformations
- 10 Qualitative theory, general
- 11 Comparison theorems; oscillation, zeros and growth of solutions
- 12 Periodic solutions
- 13 Perturbations
- 14 Singular perturbations, almost periodic solutions
- 15 Stability and control, boundedness
- 16 Asymptotic behavior of solutions
- 19 Differential inequalities; a priori estimates
- 20 Generalized solutions

# SUBJECT CLASSIFICATION

- 21 Embedding theorems, Sobolev spaces (See also 46.38)
  - 23 Pseudodifferential operators (See also 47.65)
  - 24 Regularity of generalized solutions
  - 30 Linear equations and systems, first order
  - 31 Linear equations and systems, higher order
  - 35 Nonlinear equations and systems, first order
  - 36 Nonlinear equations and systems, higher order
  - 37 Cauchy problems
  - 38 Discontinuous coefficients or data
  - 39 Equations and systems with constant coefficients
  - 42 Second order elliptic equations
  - 43 Higher order elliptic equations
  - 44 Elliptic systems (linear or nonlinear)
  - 45 Boundary value problems for elliptic equations
  - 46 Boundary value problems for elliptic systems
  - 47 Quasilinear elliptic equations and systems
  - 48 Hypocoelliptic equations and systems
  - 52 Second order hyperbolic equations
  - 53 Hyperbolic systems, hyperbolic equations of higher order
  - 55 Boundary value problems for hyperbolic equations and systems
  - 57 Quasilinear hyperbolic equations and systems
  - 62 Second order parabolic equations
  - 63 Parabolic systems, parabolic equations of higher order
  - 65 Boundary value problems for parabolic equations and systems
  - 70 Equations and systems of mixed type (boundary value problems, etc.)
  - 75 Laplace's equation, reduced wave equation, Poisson's equation
  - 76 Wave equation
  - 77 Schrödinger equation
  - 78 Heat equation
  - 79 Other special equations and problems
  - 80 Eigenvalue problems, spectral theory, eigenfunction expansions (See also 47.65)
  - 88 Difference-partial differential equations; equations with time lag
  - 95 Operator equations, general (See also 34.95)
  - 96 Equations on manifolds
  - 97 Equations in function spaces
39. FINITE DIFFERENCES AND FUNCTIONAL EQUATIONS
- 10 Finite differences, general
  - 20 Difference equations (See also 65.70)
  - 30 Functional equations, general
  - 31 Classical functional equations
  - 33 Linear and multilinear functional equations
  - 35 Functional equations in several variables, systems
  - 37 Matrix functional equations
  - 38 Functional equations on abstract structures
40. SEQUENCES, SERIES, SUMMABILITY
- 10 Series and sequences of numbers, general
  - 11 Infinite products
  - 12 Continued fractions
  - 13 Convergence and divergence
  - 15 Multiple series and sequences
  - 20 Sequences and series of functions, convergence
  - 30 Summability, general methods
  - 31 Summability, matrix methods
  - 32 Cesàro summability
  - 33 Abel, Poisson summability
  - 35 Summability of double series
  - 40 Convergence and summability of integrals
  - 42 Tauberian theorems
  - 46 Functional-analytic methods in summability theory
  - 50 Summability in topological groups, linear spaces, etc.
41. APPROXIMATIONS AND EXPANSIONS
- 10 Interpolation
  - 15 Polynomial approximation (See also 30.70)
  - 17 Approximation by rational functions (See also 30.70)
  - 30 Approximation by other special function classes
  - 35 Approximation by operators (in particular, by integral operators)
  - 40 Best approximation
  - 41 Degree of approximation, rate of convergence
  - 44 Approximate quadratures
  - 50 Asymptotic expansions
  - 55 Constructive theory of functions
  - 60 Abstract approximation theory; approximation in normed linear spaces and other abstract spaces
42. FOURIER ANALYSIS
- 05 Trigonometric polynomials
  - 06 Best approximation by trigonometric polynomials
  - 08 Trigonometric interpolation
  - 10 Fourier coefficients
  - 11 Convergence of Fourier series
  - 12 Absolute convergence of Fourier series
  - 15 Orthogonal functions and polynomials, general (See also 33.40)
  - 16 Expansions in orthogonal functions and polynomials
  - 17 Completeness of sets of orthogonal functions
  - 18 Completeness, closure, spectral synthesis
  - 20 Summability of Fourier and generalized Fourier expansions
  - 25 Fourier transform
  - 26 Other Fourier-type transforms
  - 27 Trigonometric moment problems
  - 30 Almost periodic functions
  - 35 Positive definite functions
  - 40 Multiple Fourier series and integrals
  - 50 Abstract harmonic analysis (Fourier analysis on LCA groups) (See also 22.65)
  - 51 Characters, duality
  - 52 Fourier-Stieltjes transform
  - 54 Positive definite functions on LCA groups
  - 55 Convolution, factorization
  - 56 Measure algebras, group algebras (See also 46.80)
  - 58 Ideals, spectral synthesis
44. INTEGRAL TRANSFORMS, OPERATIONAL CALCULUS
- 10 Laplace transform
  - 25 Convolution
  - 28 General transforms
  - 30 Special transforms: Legendre, Hilbert, etc. (See also 45.33)
  - 32 Multiple transforms
  - 33 Transforms of special functions
  - 40 Operational calculus
  - 42 Operational calculus in several variables
  - 50 Fractional integrals (See also 26.43)
  - 60 Moment problems (See also 42.27)
45. INTEGRAL EQUATIONS
- 10 Linear integral equations, general (See also 47.70)
  - 11 Fredholm equations
  - 12 Eigenvalue problems
  - 13 Volterra equations
  - 15 Singular equations
  - 20 Systems of linear equations
  - 30 Nonlinear integral equations (See also 47.80)
  - 31 Singular nonlinear equations
  - 33 Miscellaneous special kernels (See also 44.30)
  - 40 Integro-differential equations, ordinary
  - 45 Integro-partial differential equations
46. FUNCTIONAL ANALYSIS
- 01 Topological linear spaces
  - 06 Ordered TLS; vector lattices
  - 10 Normed linear spaces, Banach spaces
  - 15 Inner product spaces, Hilbert spaces, spaces with an indefinite metric
  - 20 Other special spaces
  - 25 Spaces of continuous functions



# SUBJECT CLASSIFICATION

- 30 Spaces of differentiable and analytic functions
- 35 Spaces of measurable functions;  $L^p$  spaces, Orlicz spaces
- 38 Sobolev spaces, embedding theorems, interpolation spaces (See also 35.21, 47.65)
- 40 Distributions, generalized functions
- 45 Derivatives and differentials in abstract spaces
- 50 Topological algebras, normed rings and algebras, Banach algebras: general theory
- 55 Commutative Banach algebras; function algebras
- 60 Rings and algebras with an involution,  $\ast$ -algebras: general theory
- 65 Rings and algebras of operators (with or without involution);  $C^\ast$ -algebras, von Neumann algebras
- 80 Group algebras, convolution algebras (See also 22.65, 42.56)
- 90 Miscellaneous applications of functional analysis

## 47. OPERATOR THEORY

- 10 Single linear operators, general theory
- 20 Operators in ordered spaces
- 25 Operators in function spaces and other special spaces (See also 28.70)
- 30 Spectral theory, functional calculus
- 35 Reducibility, invariant subspaces
- 40 Structure, classification, canonical forms
- 45 Compact (completely continuous) operators
- 48 Perturbation theory
- 50 Semigroups and groups of operators
- 55 Other systems of operators (See also 46.65)
- 60 Ordinary differential operators (See also 34.30)
- 65 Partial differential operators (See also 35.80)
- 70 Integral and integro-differential operators
- 80 Nonlinear operators, general theory
- 85 Fixed-point theorems (See also 54.85)
- 90 Miscellaneous applications

## 49. CALCULUS OF VARIATIONS, OPTIMAL CONTROL (See also 93.40)

## 50. GEOMETRY (See also 14.00)

- 05 Foundations
- 10 Euclidean
- 14 Constructions
- 20 Affine geometry, general
- 25 Transformations
- 30 Projective geometry, general
- 35 Transformations
- 38 Second-order loci
- 40 Non-Euclidean geometry (i.e. hyperbolic or elliptic)
- 48 Special geometries
- 60 Finite geometries (See also 05.27)
- 70 Projective planes
- 90 Regular figures, divisions of space (See also 52.00)

## 52. CONVEX SETS AND GEOMETRIC INEQUALITIES

- 10 Convex polyhedra
- 25 Convex curves
- 30 Convex regions
- 34 Helly-type theorems
- 40 Extremum problems and geometric inequalities
- 45 Packing and covering (See also 50.90)
- 50 Distance geometries

## 53. DIFFERENTIAL GEOMETRY

- 01 Curves and surfaces in Euclidean spaces
- 04 Minimal surfaces
- 10 Affine differential geometry
- 20 Projective differential geometry
- 23 Differential line geometry
- 25 Conformal differential geometry
- 30 Non-Euclidean differential geometry
- 32 Other special differential geometries

- 35 Vector and tensor analysis
- 38 Spinor analysis
- 40 Differentiable manifolds (general theory), e.g., definitions, jets, tangent bundles (See also 57.30)
- 42 Differential invariants (local theory), geometric objects
- 45 Differential calculus (global theory); forms, currents, integration, tensor fields, etc. (See also 57.50)
- 50 Connections, general
- 52  $G$ -structures
- 55 Affine connections
- 60 Projective connections
- 66 Homogeneous manifolds (See also 22.70, 57.45)
- 70 Local Riemannian geometry
- 72 Riemannian manifolds
- 73 Symmetric spaces (See also 22.70, 57.45)
- 74 Submanifolds, isometric imbeddings (See also 57.20)
- 75 Global surface theory (convex surfaces)
- 78 Lorentz metrics and generalizations
- 80 Hermitian and Kählerian structures (See also 32.00, 57.60)
- 85 Finsler spaces and generalizations (areal metrics)
- 90 Integral geometry
- 95 Direct methods ( $G$ -spaces of Busemann), geometric orders
- 99 Other generalizations

## 54. GENERAL TOPOLOGY

- 10 Axiomatics; generalizations of topological spaces, syntopogenous spaces
- 20 Topological spaces, general
- 22 Convergence notions
- 23 Separation axioms,  $T_1$ -spaces
- 25 General constructs (products, quotients, limits, etc.)
- 28 Function spaces
- 30 Uniform structures, proximity spaces
- 35 Metric spaces, metrizability
- 38 Moore spaces
- 40 Countability conditions, separability, Lindelöf spaces
- 50 Paracompact spaces
- 52 Compactness, local compactness, generalizations
- 53 Compactifications, other extensions
- 55 Connectedness, continua
- 56 Ordered topological spaces (See also 06.65)
- 60 Mappings
- 65 Set-valued mappings
- 70 Dimension theory (See also 55.35)
- 75 Topology of  $E_n$ , 2-manifolds
- 78 Topology of  $E_n$ ,  $n$ -manifolds ( $n > 2$ )
- 80 Transformation groups and semigroups (See also 22.40)
- 82 Topological dynamics
- 85 Fixed-point theorems, coincidence theorems, etc. (See also 47.85)

## 55. ALGEBRAIC TOPOLOGY

- 10 Graphs, map-coloring (See also 05.40)
- 20 Knots, links (See also 57.20)
- 25 Cell-complexes, simplicial complexes
- 30 Homology and cohomology theories;  $K$ -theory
- 32 Sheaves
- 34 Cohomology operations, Steenrod algebra
- 36 Periodic transformations, fixed points, coincidences (Smith theory)
- 38 Dimension theory (See also 54.70)
- 40 Homotopy theory, general
- 42 Algebra of mappings (including cohomotopy groups)
- 45 Computation of homotopy groups
- 50 Fiber spaces (See also 57.30)
- 52 Spectral sequences
- 60 Manifolds (See also 53.40, 54.78, 57.01)
- 66 Generalized manifolds, local homology
- 68 Homotopy manifolds
- 70 Imbedding, immersion (See also 57.20)

57. TOPOLOGY AND GEOMETRY OF MANIFOLDS

- 01 Topological manifolds, combinatorial manifolds (See also 55.60)
- 05 Geometric topology
- 10 Differentiable structures, cobordism
- 20 Differentiable mappings, imbeddings, immersions, diffeomorphisms (See also 53.74, 55.70)
- 30 Fiber bundles, vector bundles (See also 53.40, 55.50)
- 31 Topology of differentiable manifolds (See also 54.78)
- 32 Characteristic classes
- 34 Topology of vector and tensor fields
- 36 Foliations (See also 34.65)
- 40 Topology of Lie groups
- 45 Topology of homogeneous spaces (See also 22.70, 53.66, 53.73)
- 47 Transformation groups (See also 22.40, 54.80)
- 50 Analysis on differentiable manifolds (See also 53.72)
- 55 Infinite-dimensional manifolds
- 60 Complex manifolds (See also 32.00, 53.80)
- 70 Infinite Lie groups, deformations

60. PROBABILITY

- 02 Axioms, foundations
- 05 Probabilistic measure theory
- 08 Probability in topological groups, other structures
- 10 Combinatorial probability
- 15 Geometric probability
- 20 Distributions, characteristic functions
- 30 Limit theorems
- 40 Stochastic processes, general theory
- 50 Stationary processes
- 60 Markov processes, general
- 62 Hunt processes, diffusion processes, Brownian motion, probabilistic potential theory
- 65 Markov chains
- 68 Random walks
- 67 Branching processes; Galton-Watson, birth-and-death processes
- 69 Other special processes
- 70 Renewal theory
- 75 Stochastic differential and integral equations
- 80 Queuing, congestion, allocation, storage
- 90 Other applications

62. STATISTICS

- 05 Foundations: axiomatics, sufficiency, invariance, other general considerations
- 10 Distribution theory
- 15 Asymptotic theory
- 16 Exact and asymptotic efficiency
- 20 Estimation: parametric case
- 25 Hypothesis testing: parametric case
- 30 Decision theory
- 31 Ranking and selection
- 35 Bayesian inference
- 40 Multivariate analysis
- 41 Classification and discrimination
- 45 Sequential methods
- 50 Information-theoretic methods
- 55 Linear statistical inference, regression analysis
- 56 Analysis of variance; hierarchical models
- 60 Design and analysis of experiments, general
- 61 Construction of designs (See also 05.20)
- 62 Optimal designs
- 63 Factorial designs
- 64 Paired and multiple comparisons
- 70 Non-parametric methods
- 71 Goodness-of-fit tests
- 75 Order statistics
- 80 Engineering statistics; life testing and reliability, quality control
- 85 Statistical analysis of stochastic processes; time series

- 90 Sample surveys
- 95 Count data, contingency tables
- 97 Biometrics
- 99 Other applications

65. NUMERICAL METHODS

- 05 Tables, construction of tables
- 10 General mathematical methods; iteration, acceleration of convergence, numerical experiments
- 15 Monte Carlo methods
- 20 Interpolation, smoothing, least squares, curve fitting, approximation of functions
- 25 Computation of special functions, series, integrals
- 30 Mathematical programming and optimization techniques
- 33 Linear inequalities
- 35 Linear equations, determinants, matrices
- 40 Eigenvalues, eigenvectors
- 50 Solution of algebraic and transcendental equations and systems
- 55 Numerical differentiation and integration, quadrature, cubature, etc.
- 60 Ordinary differential equations, general
- 61 Initial value problems
- 62 Boundary value problems
- 65 Partial differential equations, general
- 66 Elliptic equations
- 67 Hyperbolic equations
- 68 Parabolic equations
- 70 Difference and functional equations
- 75 Integral and integro-differential equations
- 80 Error analysis
- 82 Miscellaneous inequalities
- 85 Graphical methods
- 90 Harmonic analysis and synthesis

68. COMPUTING MACHINES

69. GENERAL APPLIED MATHEMATICS

70. MECHANICS OF PARTICLES AND SYSTEMS

- 34 Ordinary differential equations
- 35 Partial differential equations
- 45 Integral and integro-differential equations
- 49 Calculus of variations
- 60 Probability
- 65 Numerical methods

73. ELASTICITY, PLASTICITY

- 34 Ordinary differential equations
- 35 Partial differential equations
- 44 Integral transforms
- 45 Integral and integro-differential equations
- 46 Functional analysis
- 49 Calculus of variations
- 60 Probability
- 65 Numerical methods

76. FLUID MECHANICS, ACOUSTICS

- 34 Ordinary differential equations
- 35 Partial differential equations
- 41 Approximations and expansions
- 44 Integral transforms
- 45 Integral and integro-differential equations
- 46 Functional analysis
- 49 Calculus of variations
- 60 Probability
- 65 Numerical methods

78. OPTICS, ELECTROMAGNETIC THEORY

- 31 Potential theory
- 34 Ordinary differential equations
- 35 Partial differential equations

# SUBJECT CLASSIFICATION

- 45 Integral and integro-differential equations
- 65 Numerical methods
80. CLASSICAL THERMODYNAMICS, HEAT TRANSFER
  - 31 Potential theory
  - 35 Partial differential equations
81. QUANTUM MECHANICS
  - 06 Order, lattices
  - 22 Lie groups and algebras, representations
  - 30 Functions of a complex variable
  - 31 Potential theory
  - 32 Several complex variables
  - 34 Ordinary differential equations
  - 35 Partial differential equations
  - 45 Integral and integro-differential equations
  - 46 Functional analysis;  $C^*$ -algebras
  - 47 Operator theory
  - 60 Probability
  - 62 Statistics
82. STATISTICAL PHYSICS, STRUCTURE OF MATTER
  - 20 Group theory
  - 45 Integral and integro-differential equations
  - 62 Statistics
83. RELATIVITY
  - 35 Partial differential equations
  - 53 Differential geometry
85. ASTRONOMY AND ASTROPHYSICS
86. GEOPHYSICS
90. ECONOMICS, OPERATIONS RESEARCH, PROGRAMMING, GAMES
  - 10 Economics
  - 30 Operations research
- 40 Multi-stage decision processes, dynamic programming (general)
- 50 Linear programming
- 56 Integer programming
- 57 Stochastic programming
- 58 Nonlinear programming, general
- 59 Quadratic programming
- 60 Convex programming
- 70 Game theory
- 72 Stochastic games
- 75 Differential and continuous games (See also 93.40)
92. BIOLOGY AND BEHAVIORAL SCIENCES
  - 10 Biology
  - 20 Genetics
  - 30 Population dynamics, epidemiology
  - 40 Sociology
  - 50 Psychology
93. SYSTEMS, CONTROL
  - 10 Systems, general
  - 20 Stability, qualitative behavior
  - 40 Optimal control (See also 34.85, 35.15, 49.00, 90.00)
  - 60 Stochastic control
  - 70 Adaptive control
94. INFORMATION AND COMMUNICATION, CIRCUITS, AUTOMATA
  - 10 Communication theory
  - 20 Information theory
  - 30 Circuits, networks; applications of graph theory, Boolean algebra
  - 40 Automata, general (See also 02.88)
  - 45 Probabilistic automata
  - 50 Linguistics, formal languages



# ABBREVIATIONS OF NAMES OF JOURNALS

This list gives the form of references used in MATHEMATICAL REVIEWS and the complete title; the place of publication and other pertinent information are given in parentheses when desirable for clarity.

- Abh. Akad. Wiss. Göttingen Math.-Phys. Kl.* Abhandlungen der Akademie der Wissenschaften in Göttingen. Mathematisch-Physikalische Klasse. (Göttingen)
- Abh. Braunschweig. Wiss. Gesell.* Abhandlungen der Braunschweigischen Wissenschaftlichen Gesellschaft. (Braunschweig)
- Abh. Deutsch. Akad. Wiss. Berlin Kl. Math. Phys. Tech.* Abhandlungen der Deutschen Akademie der Wissenschaften zu Berlin. Klasse für Mathematik, Physik und Technik. (Berlin)
- Abh. Math. Sem. Univ. Hamburg.* Abhandlungen aus dem Mathematischen Seminar der Universität Hamburg. (Hamburg)
- Abh. Sächs. Akad. Wiss. Leipzig Math.-Natur. Kl.* Abhandlungen der Sächsischen Akademie der Wissenschaften zu Leipzig. Mathematisch-Naturwissenschaftliche Klasse. (Leipzig)
- Abstracts Bulgarian Sci. Lit. Math. Phys. Astronom. Geophys. Geodes.* Bulgarian Academy of Sciences. Centre of Scientific Information and Documentation. Abstracts of Bulgarian Scientific Literature. Mathematics, Physics, Astronomy, Geophysics, Geodesy. (Sofia)
- Acad. R. P. Romîne Baza Cerc. Şti. Timişoara Stud. Cerc. Şti. Tehn.* Academia Republicii Populare Romîne. Baza de Cercetări Ştiinţifice Timişoara. Studii şi Cercetări Ştiinţe Tehnice. (Timişoara)
- Acad. Roy. Belg. Bull. Cl. Sci. Académie Royale de Belgique.* Bulletin de la Classe des Sciences. Koninklijke Belgische Academie. Mededelingen van de Klasse der Wetenschappen. (Brussels)
- Acad. Roy. Belg. Cl. Sci. Mém. Coll. in-8°.* Académie Royale de Belgique. Classe des Sciences. Mémoires. Collection in-8°. Koninklijke Belgische Academie. Klasse der Wetenschappen. Verhandelingen. Verzameling in-8°. (Brussels)
- Acad. Serbe Sci. Arts. Glas.* Académie Serbe des Sciences et des Arts. Glas. Classe des Sciences Mathématiques et Naturelles. Nouvelle Série. (Belgrade)
- Accad. Naz. Sci. Lett. Arti Modena Atti Mem.* Accademia Nazionale di Scienze Lettere e Arti. Modena. Atti e Memorie. (Modena)
- Acta Acad. Abo. Ser. B.* Acta Academiae Aboensis, Ser. B. Mathematica et Physica. Matematik-Naturvetenskap-Teknik. (Åbo = Turku)
- Acta Acust. Sinica.* Acta Acustica Sinica. (Peking)
- Acta Arith. Polaka Akademia Nauk. Instytut Matematyczny.* Acta Arithmetica. (Warsaw)
- Acta Astronom. Sinica.* Acta Astronomica Sinica. (Peking)
- Acta Fac. Rerum Natur. Univ. Comenian.* Acta Facultatis Rerum Naturalium Universitatis Comenianae. (Bratislava)
- Acta Math.* Acta Mathematica. (Uppsala)
- Acta Math. Acad. Sci. Hungar.* Acta Mathematica Academiae Scientiarum Hungaricae. (Budapest)
- Acta Math. Sinica.* Acta Mathematica Sinica. (Peking) (Translated as: *Chinese Math.—Acta*)
- Acta Mech.* Acta Mechanica. (Vienna)
- Acta Mech. Sinica (New York).* Acta Mechanica Sinica. (New York) (Translation of *Acta Mech. Sinica (Peking)*)
- Acta Mech. Sinica (Peking).* Acta Mechanica Sinica. (Peking) (Translated as: *Acta Mech. Sinica (New York)*)
- Acta Mexicana Ci. Tecn.* Instituto Politécnico Nacional. Acta Mexicana de Ciencia y Tecnología. (Mexico City)
- Acta Philos. Fenn.* Acta Philosophica Fennica. (Helsinki)
- Acta Phys. Acad. Sci. Hungar.* Acta Physica Academiae Scientiarum Hungaricae. (Budapest)
- Acta Phys. Austriaca.* Acta Physica Austriaca. (Vienna)
- Acta Phys. Sinica.* Acta Physica Sinica. (Peking) (Translated as: *Chinese J. Phys. (Peking)*)
- Acta Polytech. Scand. Math. and Comput. Mach. Ser.* Acta Polytechnica Scandinavica. Mathematics and Computing Machinery Series. (Stockholm)
- Acta Sci. Math. (Szeged).* Acta Universitatis Szegediensis. Acta Scientiarum Mathematicarum. (Szeged)
- Acta Sci. Natur. Univ. Pekinensis.* Acta Scientiarum Naturalium Universitatis Pekinensis. (Peking)
- Acta Univ. Tamper.* Acta Universitatis Tampereensis. (Helsinki)
- Acta Univ. Wratislav.* Acta Universitatis Wratislaviensis. (Wrocław)
- Actualités Sci. Indust.* Actualités Scientifiques et Industrielles. (Paris)
- Advances in Math.* Advances in Mathematics. (New York)
- Aequationes Math.* Aequationes Mathematicae. (Basel)
- AIAA J.* AIAA Journal. (Easton, Pa.)
- Akad. Nauk Armjan. SSR Dokl.* Akademija Nauk Armjanskoi SSR. Doklady. (Erevan)
- Akad. Nauk Azerbaidžan. SSR Dokl.* Akademija Nauk Azerbaidžanskoi SSR. Doklady. (Baku)
- Akad. Nauk Azerbaidžan. SSR Trudy Inst. Mat. Meh.* Akademija Nauk Azerbaidžanskoi SSR. Trudy Instituta Matematiki i Mexaniki. (Baku)
- Akad. Nauk Gruzin. SSR Trudy Tbiliss. Mat. Inst. Razmadze.* Akademija Nauk Gruzinskoi SSR. Trudy Tbilisskogo Matematitseskogo Instituta im. A. M. Razmadze. (Tbilisi) See *Sakharish. SSR Mecn. Akad. Math. Inst. Šrom.*
- Akad. Nauk Kazah. SSR Trudy Astrofiz. Inst.* Akademija Nauk Kazahskoi SSR. Trudy Astrofizitseskogo Instituta. (Alma-Ata)
- Akad. Nauk Kazah. SSR Trudy Sekt. Mat. Meh.* Akademija Nauk Kazahskoi SSR. Trudy Sektora Matematiki i Mexaniki. (Alma-Ata)
- Akad. Nauk SSSR Sibirsk. Otdel. Inst. Avtomat. Elektrometr. Trudy.* Akademija Nauk SSSR. Sibirskoe Otdelenie. Institut Avtomatiki i Elektrometrii. Trudy. (Novosibirsk)
- Akad. Nauk SSSR Trudy Jakutsk. Filial. Ser. Fiz.* Akademija Nauk SSSR. Trudy Jakutskogo Filiala. Serija fizičeskaja. (Moscow)
- Akad. Nauk Uzbek. SSR Trudy Inst. Mat.* Akademija Nauk Uzbekskoi SSR. Trudy Instituta Matematiki im. V. I. Romanovskogo. (Tashkent)
- Akad. Wiss. Lit. Mainz Abh. Math.-Natur. Kl.* Akademie der Wissenschaften und der Literatur in Mainz. Abhandlungen der Mathematisch-Naturwissenschaftlichen Klasse. (Wiesbaden)
- Akust. Ž.* Akademija Nauk SSSR. Akustičeskij Žurnal. (Moscow) (Translated as: *Soviet Physics Acoust.*)

ABBREVIATIONS OF NAMES OF JOURNALS

*Algebra i Logika Sem.* Akademija Nauk SSSR. Sibirskoe Otdelenie. Institut Matematiki. Algebra i Logika. Seminar. (Novosibirsk)  
(Continued as: *Algebra i Logika*)

*Algebra i Logika.* Akademija Nauk. SSSR. Sibirskoe Otdelenie. Institut Matematiki. Algebra i Logika. (Novosibirsk) (Formerly: *Algebra i Logika Sem.*)

*Algoritmy i Algoritmy. Jazyki.* Vyšitel'nyy Centr Akademii Nauk SSSR. Algoritmy i Algoritmičeskie Jazyki. (Moscow)

*Algorytmy.* Algorytmy. Prace Instytutu Maszyn Matematycznych Polskiej Akademii Nauk. (Warsaw)

*Allgemein. Statist. Arch.* Allgemeines statistisches Archiv. Organ der Deutschen Statistischen Gesellschaft. (Munich)

*Amer. J. Math.* American Journal of Mathematics. (Baltimore, Md.)

*Amer. J. Phys.* American Journal of Physics. (New York)

*Amer. Math. Monthly.* The American Mathematical Monthly. (Buffalo, N.Y.)

*Amer. Math. Soc. Transl.* American Mathematical Society Translations. (Providence, R.I.)

*AMR.* Applied Mechanics Reviews. (New York)

*An. Acad. Brasil. Ci.* Anais da Academia Brasileira de Ciencias. (Rio de Janeiro)

*An. Fac. Ci. Univ. Porto.* Anais da Faculdade de Ciências. Universidade do Porto. (Porto, Portugal)

*An. Inst. Mat. Univ. Nac. Autónoma México.* Anales del Instituto de Matemáticas. Universidad Nacional Autónoma de México. (Mexico City)

*An. Sti. Univ. "Al. I. Cuza" Iași Sect. I a Mat.* Analele Științifice ale Universității "Al. I. Cuza" din Iași. (Seria Nouă). Secțiunea I a Matematică. (Iași)

*An. Univ. București Ser. Acta Logica.* Analele Universității București. Seria Acta Logica. (Bucharest)

*An. Univ. București Ser. Sti. Natur. Fiz.* Analele Universității București. Seria Științele Naturii. Fizică. (Bucharest)

*An. Univ. București Ser. Sti. Natur. Mat.-Mec.* Analele Universității București. Seria Științele Naturii. Matematică-Mecanică. (Bucharest)

*An. Univ. Timișoara Ser. Sti. Mat.-Fiz.* Analele Universității din Timișoara. Seria Științe Matematico-Fizice. (Timișoara)

*Ann. Acad. Sci. Fenn. Ser. A I.* Suomalaisen Tiedekatemia Toimituksia. Sarja A. Annales Academiæ Scientiarum Fennicæ. Series A. I. Mathematica. (Helsinki)

*Ann. Acad. Sci. Fenn. Ser. A VI.* Suomalaisen Tiedekatemia Toimituksia. Sarja A. Annales Academiæ Scientiarum Fennicæ. Series A. VI. Physica. (Helsinki)

*Ann. Fac. Sci. Univ. Toulouse.* Annales de la Faculté des Sciences de l'Université de Toulouse pour les Sciences Mathématiques et les Sciences Physiques. (Toulouse)

*Ann. Inst. Fourier (Grenoble).* Université de Grenoble. Annales de l'Institut Fourier. (Grenoble)

*Ann. Inst. H. Poincaré Sect. A.* Annales de l'Institut Henri Poincaré. Section A: Physique théorique. (Paris)

*Ann. Inst. H. Poincaré Sect. B.* Annales de l'Institut Henri Poincaré. Section B: Calcul des probabilités et statistique. (Paris)

*Ann. Inst. Statist. Math.* Annals of the Institute of Statistical Mathematics. (Tokyo)

*Ann. Japan Assoc. Philos. Sci.* Annals of the Japan Association for Philosophy of Science. (Tokyo)

*Ann. Mat. Pura Appl.* Annali di Matematica Pura ed Applicata. (Bologna)

*Ann. Math. Statist.* The Annals of Mathematical Statistics. (Baltimore, Md.)

*Ann. of Math.* Annals of Mathematics. (Princeton, N.J.)

*Ann. Physics.* Annals of Physics. (New York)

*Ann. Physik.* Annalen der Physik. (Leipzig)

*Ann. Physique.* Annales de Physique. (Paris)

*Ann. Polon. Math.* Polska Akademia Nauk. Annales Polonici Mathematici. (Warsaw)

*Ann. Sci. École Norm. Sup.* Annales Scientifiques de l'École Normale Supérieure. (Paris)

*Ann. Scuola Norm. Sup. Pisa.* Annali della Scuola Normale Superiore di Pisa. Scienze Fisiche e Matematiche. (Pisa)

*Ann. Soc. Sci. Bruxelles Sér. I.* Annales de la Société Scientifique de Bruxelles. Série I. Sciences Mathématiques, Astronomiques et Physiques. (Brussels)

*Ann. Univ. Ferrara Ser. VII.* Annali dell'Università di Ferrara. (Nuovo Serie). Sezione VII. Scienze Matematiche. (Ferrara)

*Ann. Univ. Lyon Sect. B.* Annales de l'Université de Lyon. Section B. Sciences Physiques et Chimiques. (Lyon)

*Ann. Univ. Mariae Curie-Skłodowska Sect. A.* Annales Universitatis Mariae Curie-Skłodowska. Section A. Mathematica. (Lublin)

*Ann. Univ. Sarav. Math.-Natur. Fak.* Annales Universitatis Saraviensis. Mathematisch-Naturwissenschaftliche Fakultät. (Berlin)

*Ann. Univ. Sci. Budapest. Eötvös Sect. Math.* Annales Universitatis Scientiarum Budapestinensis de Rolando Eötvös Nominatae. Sectio Mathematica. (Budapest)

*Ann. Univ. Turku. Ser. A I.* Annales Universitatis Turkuensis. Series A. I. Astronomica-Chemica-Physica-Mathematica. (Turku)

*Annuaire Univ. Sofia Fac. Math.* Godišnik na Sofijskija Universitet Matematičeski Fakultet. Annuaire de l'Université de Sofia. Faculté de Mathématiques. (Sofia)

*Annuaire Univ. Sofia Fac. Phys.* Godišnik na Sofijskija Universitet Fizičeski Fakultet. Annuaire de l'Université de Sofia. Faculté de Physique. (Sofia)

*Annual Rep. Coll. Lib. Arts Univ. Iwate.* Annual Report of the College of Liberal Arts, University of Iwate. (Kakusanwaki)

*Appl. Mat.* Československá Akademie Věd. Aplikace Matematiky. (Prague)

*Appl. Mech. Rev.* Applied Mechanics Reviews. (New York) (Sometimes abbreviated as *AMR* in the text of *Math. Reviews*)

*Appl. Sci. Res.* Applied Scientific Research. (The Hague)

*Appl. Statist.* Applied Statistics. A Journal of the Royal Statistical Society. (London)

*Arbok Univ. Bergen Mat.-Natur. Ser.* Årbok for Universitetet i Bergen. Mat.-Naturv. Serie. (Bergen)

*Arch. Automat. i Telemekh.* Instytut Automatyki Polskiej Akademii Nauk. Archiwum Automatyki i Telemekhaniki. (Warsaw)

*Arch. History Exact Sci.* Archive for History of Exact Sciences. (Berlin)

*Arch. Internat. Histoire Sci.* Archives Internationales d'Histoire des Sciences. (Paris)

*Arch. Math. (Basel).* Archiv der Mathematik. Archives of Mathematics. Archives Mathématiques. (Basel-Stuttgart)

*Arch. Math. (Brno).* Spisy Přírodovědecké Fakulty University J. E. Purkyně v Brně. Archivum Mathematicum. (Brno)

*Arch. Math. Logik Grundlagenforsch.* Archiv für mathematische Logik und Grundlagenforschung. (Stuttgart)

*Arch. Mech. Stos.* Polska Akademia Nauk: Instytut Podstawowych Problemów Techniki. Archiwum Mechaniki Stosowanej. (Warsaw)

*Arch. Rational Mech. Anal.* Archive for Rational Mechanics and Analysis. (Berlin)

*Archimede.* Archimede. Rivista per gli Insegnanti e i Cultori di Matematiche Pure e Applicate. (Florence)

- Ark. Astronom.* Arkiv för Astronomi. (Stockholm)
- Ark. Fys.* Arkiv för Fysik. (Stockholm)
- Ark. Mat.* Arkiv för Matematik. (Stockholm)
- Arkhimedes.* Arkhimedes. Suomen Fysiikkoseura—Finlands Fysikerförening r.y. Suomen Matemaattinen Yhdistys—Finlands Matemaattiska Förening r.y. (Helsinki)
- Armjan. Gos. Ped. Inst. Sb. Naučn. Trud. Ser. Fiz.-Mat.* Armjanskij Gosudarstvennyj Pedagogičeskij Institut imeni H. Abovjana. Sbornik Naučnyh Trudov. Serija Fiziko-Matematičeskaja. (Erevan) (Formerly: *Erevan. Armjan. Gos. Ped. Inst. im. H. Abovjana Učen. Zap. Ser. Mat. Nauk*)
- Arquivo Inst. Gulbenkian Ci. A Estud. Mat. Fis.-Mat.* Arquivo do Instituto Gulbenkian de Ciência. A. Estudos Matemáticos e Físico-Matemáticos. (Lisbon)
- Assoc. Roy. Actuar. Belges Bull.* Association Royale des Actuaire Belges. Bulletin. (Brussels)
- Astrofizika.* Akademija Nauk Armjanskoi SSR. Astrofizika. (Erevan) (Translated as: *Astrophysics*)
- Astronaut. Acta.* Astronautica Acta. (Vienna)
- Astronom. J.* The Astronomical Journal. (New Haven, Conn.)
- Astronom. Jber.* Astronomischer Jahresbericht. (Berlin)
- Astronom. Nachr.* Astronomische Nachrichten. (Berlin)
- Astrophys. J.* The Astrophysical Journal. (Chicago, Ill.)
- Astrophysics.* Astrophysics. (A translation of *Astrofizika* of the Academy of Sciences of the Armenian SSR). (New York) (Translation of *Astrofizika*)
- Atti Accad. Gioenia Sci. Natur. Catania.* Atti della Accademia Gioenia di Scienze Naturali in Catania. (Catania)
- Atti Accad. Ligure Sci. Lett.* Atti della Accademia Ligure di Scienze e Lettere. (Genoa)
- Atti Accad. Naz. Lincei Mem. Cl. Sci. Fis. Mat. Natur. Sez. I.* Atti della Accademia Nazionale dei Lincei. Memorie. Classe di Scienze Fisiche, Matematiche e Naturali. Sezione I<sup>a</sup>. (Matematica, Meccanica, Astronomia, Geodesia e Geofisica). (Rome)
- Atti Accad. Naz. Lincei Rend. Cl. Sci. Fis. Mat. Natur.* Atti della Accademia Nazionale dei Lincei. Rendiconti. Classe di Scienze Fisiche, Matematiche e Naturali. (Rome)
- Atti Accad. Sci. Fis. Mat. Napoli.* Atti dell'Accademia delle Scienze Fisiche e Matematiche di Napoli. (Naples)
- Atti Accad. Sci. Ist. Bologna Cl. Sci. Fis. Rend.* Atti della Accademia delle Scienze dell'Istituto di Bologna. Classe di Scienze Fisiche. Rendiconti. (Bologna)
- Atti Accad. Sci. Lett. Arti Palermo Parte I.* Atti della Accademia di Scienze Lettere e Arti di Palermo. Parte Prima: Scienze. (Palermo)
- Atti Accad. Sci. Torino Cl. Sci. Fis. Mat. Natur.* Atti della Accademia delle Scienze di Torino. Classe di Scienze Fisiche, Matematiche e Naturali. (Turin)
- Atti Sem. Mat. Fis. Univ. Modena.* Atti del Seminario Matematico e Fisico dell'Università di Modena. (Modena)
- Austral. Comput. J.* The Australian Computer Society. The Australian Computer Journal. (Chippendale)
- Austral. J. Phys.* Australian Journal of Physics. (Melbourne)
- Austral. J. Statist.* The Australian Journal of Statistics. (Sydney)
- Automat. Remote Control.* Automation and Remote Control. (A translation of *Automatika i Telemekhanika*, a publication of the Academy of Sciences of the USSR). (Pittsburgh, Pa.) (Translation of *Automat. i Telemekh.*)
- Automatica. Internat. J. Automat. Control Automation.* Automatica. The International Journal on Automatic Control and Automation. (Oxford)
- Automat. i Telemekh.* Akademija Nauk Sojuz SSR. Avtomatika i Telemekhanika. (Moscow) (Translated as: *Automat. Remote Control*)
- Automat. i Vyčisl. Tehn.* Avtomatika i Vyčislitel'naja Tehnika. (Riga)
- Automatika.* Akademija Nauk Ukraïns'koï RSR. Institut Elektrotehniki. Avtomatika. (Kiev)
- Azerbaidžan. Gos. Univ. Učen. Zap. Ser. Fiz.-Mat. i Him. Nauk.* Azerbaidžanskij Gosudarstvennyj Universitet im. S. M. Kirova. Učenyje Zapiski. Serija Fiziko-Matematičeskij i Himičeskij Nauk. (Baku) (Continued as: *Azerbaidžan. Gos. Univ. Učen. Zap. Ser. Fiz.-Mat. Nauk*)
- Azerbaidžan. Gos. Univ. Učen. Zap. Ser. Fiz.-Mat. Nauk.* Azerbaidžanskij Gosudarstvennyj Universitet im. S. M. Kirova. Učenyje Zapiski. Serija Fiziko-Matematičeskij Nauk. (Baku) (Formerly: *Azerbaidžan. Gos. Univ. Učen. Zap. Ser. Fiz.-Mat. i Him. Nauk*)
- Baškir. Gos. Univ. Učen. Zap.* Baškirkij Gosudarstvennyj Universitet. Učenyje Zapiski. (Ufa)
- Bayer. Akad. Wiss. Math.-Natur. Kl. S.-B.* Bayerische Akademie der Wissenschaften. Mathematisch-Naturwissenschaftliche Klasse. Sitzungsberichte. (Munich)
- Beijing Dazus Xuebao Ziran Kexue.* See *Acta Sci. Natur. Univ. Pekinensis*.
- Bell System Tech. J.* The Bell System Technical Journal. (New York)
- Biometrics.* Biometrika. Journal of the Biometric Society. (Blackburg, Va.)
- Biometrika.* Biometrika. (London)
- BIT = Nordisk Tidsskr. Informations-Behandling (BIT).*
- Biul. Lubel. Towarz. Nauk. Wydział II Mat. Fiz. Chem.* Biuletyn Lubelskiego Towarzystwa Naukowego. Wydział II. Matematyka. Fizyka. Chemia. (Lublin)
- Bjull. Inst. Teoret. Astronom.* Akademija Nauk Sojuz Sovetskijh Socialističeskijh Respublik. Bjulleten' Instituta Teoretičeskoi Astronomii. (Moscow)
- B'lgar. Akad. Nauk. Otd. Mat. Fiz. Nauk. Izv. Fiz. Inst. s Aneb.* B'lgarska Akademija na Naukite. Otdelenie a Matematičeskij i Fizičeskij Nauki. Izvestija na Fizičeskija Institut s Aneb. (Sofia)
- B'lgar. Akad. Nauk. Otd. Mat. Fiz. Nauk. Izv. Mat. Inst.* B'lgarska Akademija na Naukite. Otdelenie za Matematičeskij i Fizičeskij Nauki. Izvestija na Matematičeskija Institut. (Sofia)
- Boi. Soc. Mat. Mexicana.* Boletín de la Sociedad Matemática Mexicana. (Mexico City)
- Boi. Soc. Mat. São Paulo.* Boletim da Sociedade de Matemática de São Paulo. (São Paulo)
- Boi. Univ. Paraná Inst. Fis.* Boletim da Universidade do Paraná. Conselho de Pesquisas. Instituto de Física. (Paraná)
- Boll. Un. Mat. Ital.* Bollettino della Unione Matematica Italiana. (Bologna)
- Bonn. Math. Schr.* Bonner Mathematische Schriften. (Bonn)
- British J. Hist. Sci.* British Society for the History of Science. British Journal for the History of Science. (London)
- British J. Philos. Sci.* The British Journal for the Philosophy of Science. (Edinburgh)
- Buharsk. Gos. Ped. Inst. Učen. Zap. Ser. Fiz.-Mat. Nauk.* Buharskij Gosudarstvennyj Pedagogičeskij Institut. Učenyje Zapiski. Serija Fiziko-Matematičeskij Nauk. (Bukhara)
- Bul. Akad. Štiinca RSS Moldoven.* Akademija Nauk Moldavakoï SSR. Izvestija Akademii Nauk Moldavakoï SSR. Buletinul Akademiei de Știinca a RSS Moldovenești. (Kishinev)
- Bul. Inst. Politehn. Brașov Ser. A Mec.* Buletinul Institutului Politehnic din Brașov. Seria A. Mecanică. (Brașov)
- Bul. Inst. Politehn. București.* Buletinul Institutului Politehnic București. (Bucharest)
- Bul. Inst. Politehn. Iași.* Buletinul Institutului Politehnic din Iași. Serie Nouă. (Iași)
- Bul. Ști. Inst. Politehn. Cluj.* Buletinul Științific al Institutului Politehnic din Cluj. (Cluj)
- Bul. Ști. Tehn. Inst. Politehn. Timișoara.* Buletinul Științific și Tehnic al Institutului Politehnic Timișoara. Serie Nouă. (Timișoara)



ABBREVIATIONS OF NAMES OF JOURNALS

- Bull. Acad. Polon. Sci. Sér. Sci. Math. Astronom. Phys.* Bulletin de l'Académie Polonaise des Sciences. Série des Sciences Mathématiques, Astronomiques et Physiques. (Warsaw)
- Bull. Acad. Polon. Sci. Sér. Sci. Tech.* Bulletin de l'Académie Polonaise des Sciences. Série des Sciences Techniques. (Warsaw) (Formerly: *Bull. Acad. Polon. Sci. Sér. Sci. Tech. Méc. Appl.* and *Bull. Acad. Polon. Sci. Sér. Sci. Tech. Méc. Théor.*)
- Bull. Acad. Polon. Sci. Sér. Sci. Tech. Méc. Appl.* Bulletin de l'Académie Polonaise des Sciences. Série des Sciences Techniques Mécaniques Appliquées. (Warsaw) (Continued as: *Bull. Acad. Polon. Sci. Sér. Sci. Tech.*)
- Bull. Acad. Polon. Sci. Sér. Sci. Tech. Méc. Théor.* Bulletin de l'Académie Polonaise des Sciences. Série des Sciences Techniques Mécaniques Théoriques. (Warsaw) (Continued as: *Bull. Acad. Polon. Sci. Sér. Sci. Tech.*)
- Bull. Acad. Serbe Sci. Arts Cl. Sci. Math. Natur. Sci. Math.* Bulletin de l'Académie Serbe des Sciences et des Arts. Classe des Sciences Mathématiques et Naturelles. Sciences Mathématiques. (Belgrade)
- Bull. Amer. Math. Soc.* Bulletin of the American Mathematical Society. (Providence, R.I.)
- Bull. Calcutta Math. Soc.* Bulletin of the Calcutta Mathematical Society. (Calcutta)
- Bull. College Sci. (Baghdad).* Bulletin of the College of Science. (Baghdad)
- Bull. Earthquake Res. Inst. Univ. Tokyo.* Bulletin of the Earthquake Research Institute, University of Tokyo. (Tokyo)
- Bull. Fac. Educ. Univ. Kagoshima.* Bulletin of the Faculty of Education, University of Kagoshima. (Kagoshima)
- Bull. Fukuoka Univ. Educ. III.* Bulletin of Fukuoka University of Education. Part III. Natural Sciences. (Fukuoka)
- Bull. Géodésique.* Bulletin Géodésique. (Paris)
- Bull. Inst. Internat. Statist.* Bulletin de l'Institut International de Statistique. (The Hague)
- Bull. Inst. Statist. Res. Training.* Institute of Statistical Research and Training. University of Dacca. The Bulletin of the Institute of Statistical Research and Training. (Dacca)
- Bull. Kyoto Univ. Education Ser. B.* Bulletin of the Kyoto University of Education. Series B. Mathematics and Natural Science. (Kyoto)
- Bull. Kyushu Inst. Tech. Math. Natur. Sci.* Bulletin of the Kyushu Institute of Technology. Mathematics, Natural Science. (Tobata)
- Bull. Math. Biophys.* The Bulletin of Mathematical Biophysics. (Ann Arbor, Mich.)
- Bull. Math. Soc. Nanyang Univ. Majallah Tahunan 'Ilmu Pasti.* Bulletin of Mathematical Society. Nanyang University. (Singapore) (Continued as: *Nanta Math.*)
- Bull. Math. Soc. Sci. Math. R. S. Roumanie.* Bulletin Mathématique de la Société des Sciences Mathématiques de la République Socialiste de Roumanie. (Bucharest)
- Bull. Math. Statist.* Bulletin of Mathematical Statistics. (Fukuoka)
- Bull. Nara Univ. Ed. Natur. Sci. Ser. B.* Bulletin of Nara University of Education. Natural Science. Series B. (Nara)
- Bull. Sci. Conseil Acad. RSF Yougoslav. Sect. A.* Bulletin Scientifique. Conseil des Académies de la RSF de Yougoslavie. Section A. (Zagreb)
- Bull. Sci. Engrg. Res. Lab. Waseda Univ.* Bulletin of Science and Engineering Research Laboratory. Waseda University. (Tokyo)
- Bull. Sci. Math.* Bulletin des Sciences Mathématiques. (Paris)
- Bull. Signal. I Math. Pures Appl.* Ministère de l'Éducation Nationale. Centre National de la Recherche Scientifique. Bulletin Signalétique. 1. Mathématiques Pures et Appliquées. (Paris)
- Bull. Soc. Math. Belg.* Bulletin de la Société Mathématique de Belgique. (Brussels)
- Bull. Soc. Math. France.* Bulletin de la Société Mathématique de France. (Paris)
- Bull. Soc. Math. Grèce.* Bulletin de la Société Mathématique de Grèce. (Athens)
- Bull. Soc. Math. Phys. Macédoine.* Bulletin de la Société des Mathématiciens et des Physiciens de la République Populaire de Macédoine. Bilten na Društvo na Matematikarite i Fizikarite od Socialistička Republika Makedonija. (Skopje)
- Bull. Soc. Roy. Sci. Liège.* Bulletin de la Société Royale des Sciences de Liège. (Liège)
- Bull. Soc. Sci. Lettres Lódz.* Bulletin de la Société des Sciences et des Lettres de Lódz. (Lódz)
- Bull. Tokyo Gakugei Univ.* Bulletin of Tokyo Gakugei University. (Tokyo)
- Bull. Univ. Osaka Prefecture Ser. A.* Bulletin of University of Osaka Prefecture. Series A. Engineering and Natural Sciences. (Osaka)
- C. R. Acad. Bulgare Sci.* Doklady Bolgarskoj Akademii Nauk. Comptes Rendus de l'Académie Bulgare des Sciences. (Sofia)
- C. R. Acad. Sci. Paris Sér. A-B.* Comptes Rendus Hebdomadaires des Séances de l'Académie des Sciences. Séries A et B. (Paris)
- Cahiers Centre Études Recherche Opér.* Cahiers du Centre d'Études de Recherche Opérationnelle. (Brussels)
- Cahiers Centre Math. Statist. Appl. Sci. Social.* Cahiers du Centre de Mathématique et de Statistique Appliquées aux Sciences Sociales de l'Institut de Sociologie Solvay. (Brussels)
- Cahiers Rhodan.* Cahiers Rhodaniens. (Lyon)
- Cahiers Topologie Géom. Différentielle.* Cahiers de Topologie et Géométrie Différentielle. (Paris)
- Calcolo.* Calcolo. (Rome)
- Calcutta Statist. Assoc. Bull.* Calcutta Statistical Association Bulletin. (Calcutta)
- Canad. J. Math.* Canadian Journal of Mathematics. Journal Canadien de Mathématiques. (Toronto, Ont.)
- Canad. J. Phys.* Canadian Journal of Physics. (Ottawa, Ont.)
- Canad. Math. Bull.* Canadian Mathematical Bulletin. Bulletin Canadien de Mathématiques. (Toronto, Ont.)
- Časopis Pěst. Mat.* Československá Akademie Věd. Časopis pro Pěstování Matematiky. (Prague)
- Čeljabinsk. Gos. Ped. Inst. Trudy.* Čeljabinskij Gosudarstvennyj Pedagogičeskij Institut. Trudy. (Chelyabinsk)
- Centaureus.* Centaurus. (Copenhagen)
- Chinese J. Phys. (Peking).* Chinese Journal of Physics (Peking). (A translation of Acta Physica Sinica of the Chinese Academy of Sciences, Peking) (New York) (Translation of Acta Phys. Sinica)
- Chinese Math.—Acta.* Chinese Mathematics. Translation of Acta Mathematica Sinica. (Providence, R.I.) (Translation of Acta Math. Sinica)
- Cho-sŏn In-min Kong-hwa-kuk Kwa-hak-wŏn T'ong-p'o.* (Academy of Science of the People's Republic of Korea. Bulletin) Cho-sŏn Min-ju-ju-ŭi In-min Kong-hwa-kuk Kwa-hak-wŏn. T'ong-p'o. (Pyongyang) (Formerly: *Cho-sŏn Kwa-hak-wŏn T'ong-bo*)
- Cho-sŏn Kwa-hak-wŏn T'ong-bo.* (Academy of Science of the People's Democratic Republic of Korea. Bulletin) Cho-sŏn Min-ju-ju-ŭi In-min Kong-hwa-kuk Kwa-hak-wŏn. T'ong-bo. (Pyongyang) (Continued as: *Cho-sŏn In-min Kong-hwa-kuk Kwa-hak-wŏn T'ong-p'o*)
- Collect. Math.* Consejo Superior de Investigaciones Científicas. Universidad de Barcelona. Collectanea Mathematica. (Barcelona)
- Colloq. Math.* Colloquium Mathematicum. (Warsaw)
- Comm. ACM.* Communications of the Association for Computing Machinery. (New York)
- Comm. Dublin Inst. Adv. Studies Ser. A.* Communications of the Dublin Institute for Advanced Studies. Series A. (Dublin)
- Comm. Fac. Sci. Univ. Ankara Sér. A.* Communications de la Faculté des Sciences de l'Université d'Ankara. Série A. Mathématiques-Physique-Astronomie. (Ankara)

ABBREVIATIONS OF NAMES OF JOURNALS

- Comm. Math. Phys.* Communications in Mathematical Physics. (New York)
- Comm. Pure Appl. Math.* Communications on Pure and Applied Mathematics. (New York)
- Comment. Math. Helv.* Commentarii Mathematici Helvetici. (Zürich)
- Comment. Math. Univ. Carolinae.* Commentationes Mathematicae Universitatis Carolinae. (Prague)
- Comment. Math. Univ. St. Pauli.* Commentarii Mathematici Universitatis Sancti Pauli. Rikkyō Daigaku Sōgaku Zasshi. (Tokyo)
- Compositio Math.* Compositio Mathematica. (Groningen)
- Comput. J.* The Computer Journal. (London)
- Comput. Rev.* Computing Reviews. (New York) (Usually abbreviated *CR* in the text of *Math. Reviews*)
- Computing (Arch. Elektron. Rechnen).* Computing. Archiv für elektronisches Rechnen. Archives for Electronic Computing. (Vienna)
- Confer. Sem. Mat. Univ. Bari.* Conferenze del Seminario di Matematica dell'Università di Bari. (Bari)
- Contents Contemporary Math. J.* Contents of Contemporary Mathematical Journals. (Providence, R.I.)
- CORS J.* CORS J. The Canadian Operational Research Society Journal. (Toronto, Ont.)
- CR.* Computing Reviews. (New York)
- Čuval. Gos. Ped. Inst. Učen. Zap.* Ministerstvo Prosvešćenija RSFSR. Čuvalskii Gosudarstvennyi Pedagogičeskii Institut im. I. Ja. Jakovleva. Učenyje Zapiski. (Cheboksary)
- Cybernetics.* Cybernetics. (New York) (A translation of *Kybernetika* (Kiev))
- Czasopis. Techn.* Politechnika Krakowska i Krakowskie Zjednoczenie Budownictwa. Czasopismo Techniczne. (Kraków)
- Czechoslovak J. Phys. Sect. B.* Československá Akademie Nauk. Československii Fizičeskii Žurnal. Czechoslovak Academy of Sciences. Czechoslovak Journal of Physics. Section B. (Prague)
- Czechoslovak Math. J.* Československá Akademie Nauk. Československii Matematičeskii Žurnal. Czechoslovak Mathematical Journal. (Prague)
- Differencial'nye Uravneniya.* Differencial'nye Uravneniya. (Minak) (Translated as: *Differential Equations*)
- Differential Equations.* Differential Equations. (New York) (Translation of *Differencial'nye Uravneniya*)
- Diskret. Analiz.* Akademija Nauk SSSR. Sibirskoe Otdelenie. Institut Matematiki. Diskretnyi Analiz. Sbornik Trudov. (Novosibirsk)
- Dissertationes Math. Rozprawy Mat.* Polakiej Akademii Nauk. Instytut Matematyczny. Dissertationes Mathematicae. Rozprawy Matematyczne. (Warsaw)
- Dokl. Akad. Nauk BSSR.* Doklady Akademii Nauk BSSR. (Minak)
- Dokl. Akad. Nauk SSSR.* Doklady Akademii Nauk SSSR. (Moscow) (Mathematics section translated as: *Soviet Math. Dokl.*; Physics section translated as: *Soviet Physics Dokl.*)
- Dokl. Akad. Nauk Tadžik. SSR.* Doklady Akademii Nauk Tadžikskoi SSR. (Dushanbe)
- Dopovidit Akad. Nauk Ukrain. RSR Ser. A.* Dopovidit Akademii Nauk Ukrain'skoi RSR. Serija A. (Kiev)
- Dopovidit Akad. Nauk Ukrain. RSR Ser. B.* Dopovidit Akademii Nauk Ukrain'skoi RSR. Serija B. (Kiev)
- Duke Math. J.* Duke Mathematical Journal. (Durham, N.C.)
- Dušanbin. Gos. Ped. Inst. Učen. Zap.* Dušanbinakii Gosudarstvennyi Pedagogičeskii Institut im. T. G. Ševčenko. Učenyje Zapiski. (Dushanbe)
- Econometrica.* Econometrica. Journal of the Econometric Society. (Chicago, Ill.)
- EEA.* Science Abstracts. Electrical & Electronics Abstracts. (London)
- Eesti NSV Tead. Akad. Füüs. Astronoom. Inst. Uurim.* Eesti NSV Teaduste Akadeemia Füüsika ja Astronoomia Instituudi Uurimused. (Trudy Instituta Fiziki i Astronomii Akademii Nauk Estonakoi SSR). Publikacii Tartuskoi Astronomičeskoi Observatorii. (Tartu)
- Eesti NSV Tead. Akad. Tartu Astronoom. Observ. Publ.* Eesti NSV Teaduste Akadeemia Tartu Astronoomia Observatooriumi Publikatsioonid. (Tartu)
- Eesti NSV Tead. Akad. Toimetised Füüs.-Mat.* Eesti NSV Teaduste Akadeemia Toimetised. Füüsika-Matemaatika. Izvestija Akademii Nauk Estonskoi SSR. Serija Fizika-Matematika. (Tallin)
- Ekonom.-Mat. Obzor.* Československá Akademie Véd. Ekonomicko-Matematický Obzor. (Prague)
- Electrical & Electronics Abstracts.* Science Abstracts. Electrical & Electronics Abstracts. (London) (Usually abbreviated *EEA* in the text of *Math. Reviews*)
- Elektron. Informationsverarbeitung. Kybernetik.* Sektion für Kybernetik beim Präsidium der Deutschen Akademie der Wissenschaften zu Berlin und der Mathematischen Gesellschaft der Deutschen Demokratischen Republik. Elektronische Informationsverarbeitung und Kybernetik. (Berlin)
- Elem. Math.* Elemente der Mathematik. Revue de Mathématiques Élémentaires. Rivista de Matematica Elementare. (Basel)
- Engng. Cybernetics.* Engineering Cybernetics. English Edition of *Tehnicheskaja Kibernetika*. (New York) (Translation of *Izv. Akad. Nauk SSSR Tehn. Kibernet.*)
- Enseignement Math.* L'Enseignement Mathématique. (Geneva)
- Erevan. Armjan. Gos. Ped. Inst. im. H. Abovjana Učen. Zap. Ser. Mat. Nauk.* Erevanskii Armjanskii Gosudarstvennyi Pedagogičeskii Institut im. H. Abovjana. Učenyje Zapiski. Serija Matematičeskii Nauk. (Erevan) (Continued as: *Armjan. Gos. Ped. Inst. Sb. Naučn. Trud. Ser. Fiz.-Mat.*)
- Estadist. Española.* Estadística Española. (Madrid)
- Estadística.* Estadística. (Washington, D.C.)
- Fac. Ingen. Agrimens. Montevideo Publ. Didact. Inst. Mat. Estadist.* Facultad de Ingeniería y Agrimensura. Montevideo. Publicaciones Didácticas del Instituto de Matemática y Estadística. (Montevideo)
- Fac. Sci. Univ. Skopje Annuaire.* Faculté des Sciences de l'Université de Skopje. Annuaire. (Skopje)
- Fergan. Gos. Ped. Inst. Učen. Zap.* Ministerstvo Vyšego i Srednego Special'nogo Obrazovanija Uzbekakoi SSR. Ferganskii Gosudarstvennyi Pedagogičeskii Institut imeni Ulugbeka. Učenyje Zapiski. Serija Matematičeskaja. (Fergana)
- Fibonacci Quart.* The Fibonacci Quarterly. Official Organ of the Fibonacci Association. A journal devoted to the study of integers with special properties. (St. Mary's College, Calif.)
- Fiz.-Mat. Spis. B'lgar. Akad. Nauk.* B'lgarska Akademija na Naukite Fizičeski Institut. Matematičeski Institut. Fiziko-Matematičesko Spisanie. (Sofia)
- FOA Rep.* FOA Reports. Försärets Forskningsanstalt (Research Institute of National Defence). (Stockholm)
- Formosan Sci.* Formosan Science. (Taipei)
- Fortachr. Physik.* Fortschritte der Physik. (Berlin)
- Found. Language.* International Journal of Language and Philosophy. Foundations of Language. (Dordrecht)
- Functional Anal. Appl.* Functional Analysis and its Applications. (A translation of *Funkcional. Anal. i Priložen.*) (New York)
- Fund. Math.* Polska Akademia Nauk. Fundamenta Mathematicae. (Warsaw)
- Funkcial. Ekvac.* Fako de l'Funkcialaj Ekvacioj Japana Matematika Societo. Funkcialaj Ekvacioj. (Serio Internacia). (Kobe)
- Funkcional. Anal. i Priložen.* Akademija Nauk SSSR. Funkcional'nyi Analiz i ego Priloženija. (Moscow) (Translated as: *Functional Anal. Appl.*)
- Fyz. Časopis Sloven. Akad. Vied.* Fyzikálny Časopis Slovenskej Akadémie Vied. (Bratislava)

ABBREVIATIONS OF NAMES OF JOURNALS

- Gac. Mat. (Madrid).* Gaceta Matemática. (Madrid)
- Gapita.* Gapita (Mathematics). Bharat Gapita Parishad (Benares Mathematical Society). (Lucknow)
- Gaz. Mat. (Lisboa).* Gazeta de Matemática. (Lisbon)
- Gaz. Mat. Ser. A.* Societatea de Științe Matematice din R. P. R. Gazeta Matematică. Publicație Pentru Studiul și Răspindirea Științelor Matematice. Seria A. (Bucharest)
- Geodæt. Inst. Medd.* Geodætisk Institut. Meddelelse. (Copenhagen)
- Giorn. Ist. Ital. Attuari.* Giornale dell'Istituto Italiano degli Attuari. (Rome)
- Giorn. Mat. Battaglini.* Giornale di Matematiche di Battaglini. (Naples)
- Glasgow Math. J.* Glasgow Mathematical Journal. (Glasgow)
- Glasnik Mat. Ser. III.* Društvo Matematicara i Fizičara S. R. Hrvatske. Glasnik Matematički. Serija III. (Zagreb)
- Godišnik Visš. Tehn. Učebn. Zaved. Fiz.* Godišnik na Visšite Tehni-  
česki Učebni Zavedenija. Fizika. (Sofia)
- Godišnik Visš. Tehn. Učebn. Zaved. Mat.* Godišnik na Visšite Tehni-  
česki Učebni Zavedenija. Matematika. (Sofia)
- Godišnik Visš. Tehn. Učebn. Zaved. Priložna Meh.* Godišnik na Visšite  
Tehničeski Učebni Zavedenija. Priložna Mehanika. (Sofia)
- Gor'kov. Gos. Univ. Učen. Zap.* Gor'kovskii Gosudarstvennyi Univer-  
sitet. Učenyje Zapiski. (Gorki)
- Gruzín. Politehn. Inst. Trudy.* Gruzinskii Politehničeskii Institut im.  
V. I. Lenina. Trudy. (Tbilisi) See V. I. Lenin. Sakharth. Politekh.  
Inst. Šrom.
- Helv. Phys. Acta.* Helvetica Physica Acta. Societatis Physicae  
Helveticae Commentaria Publica. (Basel)
- Hitotsubashi J. Arts Sci.* Hitotsubashi Journal of Arts & Sciences,  
Hitotsubashi University. (Tokyo)
- IBM J. Res. Develop.* IBM Journal of Research and Development.  
(New York)
- IBM Systems J.* International Business Machines Corporation. IBM  
Systems Journal. (Armonk, N.Y.)
- Icarus.* Icarus. International Journal of the Solar System. (New  
York)
- ICC Bull.* International Computation Centre Bulletin. Centre Inter-  
national de Calcul. (Rome)
- IEEE Spectrum.* IEEE Spectrum. (New York)
- IEEE Trans. Automatic Control.* IEEE Transactions on Automatic  
Control. (New York)
- IEEE Trans. Computers.* IEEE Transactions on Computers. (New  
York) (Formerly: *IEEE Trans. Electronic Computers*)
- IEEE Trans. Electronic Computers.* IEEE Transactions on Electronic  
Computers. (New York) (Continued as: *IEEE Trans. Computers*)
- IEEE Trans. Information Theory.* IEEE Transactions on Information  
Theory. (New York)
- Illinois J. Math.* Illinois Journal of Mathematics. (Urbana, Ill.)
- Indag. Math.* Indagationes Mathematicae. See *Nederl. Akad.  
Wetensch. Indag. Math.*
- Indian J. History Sci.* Indian Journal of History of Science. National  
Institute of Sciences of India. (New Delhi)
- Indian J. Math.* Indian Journal of Mathematics. (Allahabad)
- Indian J. Mech. Math.* Indian Journal of Mechanics and Mathematics.  
(Calcutta)
- Information and Control.* Information and Control. (New York)
- Information Processing in Japan.* Information Processing in Japan.  
(Tokyo)
- Inst. Gulbenkian Ci. Centro Olís. Ci. Estud. Program. Anál. Numér.*  
Fundação Calouste Gulbenkian. Instituto Gulbenkian de Ciência.  
Centro de Cálculo Científico. Estudos de Programação e Análise  
Numérica. (Lisbon)
- Inst. Hautes Études Sci. Publ. Math.* Institut des Hautes Études  
Scientifiques. Publications Mathématiques. (Paris)
- Internat. J. Comput. Math.* International Journal of Computer  
Mathematics. (New York)
- Internat. J. Control.* International Journal of Control. (London)
- Internat. J. Engrg. Sci.* International Journal of Engineering Science.  
(Oxford-New York)
- Internat. J. Non-linear Mech.* International Journal of Non-linear  
Mechanics. (New York)
- Invent. Math.* Inventiones Mathematicae. (Berlin)
- Int.-Stroitel. Inst. Kuibyšev. Sb. Trudov.* Moakovskii Ordena Trudo-  
vogo Krasnogo Znameni Inženerno-Stroitel'nyi Institut im. V. V.  
Kuibyševa. Sbornik Trudov. (Moscow)
- Isis.* Isis. An International Review Devoted to the History of  
Science and Civilization. (Cambridge, Mass.)
- Israel J. Math.* Israel Journal of Mathematics. (Jerusalem)
- Ist. Lombardo Accad. Sci. Lett. Rend. A.* Istituto Lombardo.  
Accademia di Scienze e Lettere. Rendiconti. Scienze Matematiche,  
Fisiche, Chimiche e Geologiche. A. (Milan)
- Ist. Veneto Sci. Lett. Arti Atti Cl. Sci. Mat. Natur.* Istituto Veneto de  
Scienze, Lettere ed Arti. Venezia. Atti. Classe de Scienze  
Matematiche e Naturali. (Venice)
- Istanbul Tek. Üniv. Bül.* İstanbul Teknik Üniversitesi Bülteni.  
Bulletin of the Technical University of Istanbul. (Istanbul)
- Istanbul Univ. Fen Fak. Mec. Ser. A.* İstanbul Üniversitesi Fen  
Fakültesi Mecmuası. A Serisi: Sırlı ve Tatbiki Matematik. Revue  
de la Faculté des Sciences de l'Université d'Istanbul. Série A:  
Mathématiques Pures et Appliquées. (Istanbul)
- Istor.-Mat. Issled.* Istoriko-Matematičeskie Issledovaniia. (Moscow-  
Leningrad)
- Ivanov. Gos. Ped. Inst. Učen. Zap.* Ministerstvo Prosvěščenija RSFSR.  
Ivanovskii Gosudarstvennyi Pedagogičeskii Institut im. D. A.  
Furmanova. Ivanovskoe Matematičeskoe Obščestvo. Učenyje Za-  
piski. (Ivanovo)
- Izv. Acad. Sci. USSR Atmospher. Ocean. Phys.* Izvestiya Academy of  
Sciences USSR. Atmospheric and Oceanic Physics. (Washington,  
D.C.) (Translation of *Izv. Akad. Nauk SSSR Ser. Fiz. Atmosfer. i  
Okeana*)
- Izv. Acad. Sci. USSR Phys. Solid Earth.* Izvestiya Academy of Sciences  
USSR. Physics of the Solid Earth. (Washington, D.C.) (Trans-  
lation of *Izv. Akad. Nauk SSSR Ser. Fiz. Zemli*)
- Izv. Akad. Nauk Armjan. SSR Ser. Mat.* Izvestija Akademii Nauk  
Armjanakoi SSR. Serija Matematika. (Erevan)
- Izv. Akad. Nauk Armjan. SSR Ser. Meh.* Izvestija Akademii Nauk  
Armjanakoi SSR. Serija Mehanika. (Erevan)
- Izv. Akad. Nauk Azerbaidžan. SSR Ser. Fiz.-Tehn. Mat. Nauk.*  
Izvestija Akademii Nauk Azerbaidžanakoi SSR. Serija Fiziko-  
Tehničeskih i Matematičeskikh Nauk. (Baku)
- Izv. Akad. Nauk Kazah. SSR Ser. Fiz.-Mat.* Izvestija Akademii Nauk  
Kazahskoi SSR. Serija Fiziko-Matematičeskaja. (Alma-Ata) (For-  
merly: *Izv. Akad. Nauk Kazah. SSR Ser. Fiz.-Mat. Nauk*)
- Izv. Akad. Nauk Kazah. SSR Ser. Fiz.-Mat. Nauk.* Izvestija Akademii  
Nauk Kazahskoi SSR. Serija Fiziko-Matematičeskaja Nauk. (Alma-  
Ata) (Continued as: *Izv. Akad. Nauk Kazah. SSR Ser. Fiz.-Mat.*)
- Izv. Akad. Nauk Kirgiz. SSR.* Izvestija Akademii Nauk Kirgizakoi  
SSR. (Frunze)
- Izv. Akad. Nauk Moldav. SSR = Bul. Akad. Științe RSS Moldoven.*
- Izv. Akad. Nauk SSSR Ser. Fiz. Atmosfer. i Okeana.* Izvestija Aka-  
demii Nauk SSSR. Serija Fizika Atmosfery i Okeana. (Moscow)  
(Translated as: *Izv. Acad. Sci. USSR Atmospher. Ocean. Phys.*)
- Izv. Akad. Nauk SSSR Ser. Fiz. Zemli.* Izvestija Akademii Nauk  
SSSR Serija Fizika Zemli. (Moscow) (Translated as: *Izv. Acad.  
Sci. USSR Phys. Solid Earth*)
- Izv. Akad. Nauk SSSR Ser. Mat.* Izvestija Akademii Nauk SSSR.  
Serija Matematičeskaja. (Moscow) (Translated as: *Math. USSR-  
Izv.*)



ABBREVIATIONS OF NAMES OF JOURNALS

- Izv. Akad. Nauk SSSR Ser. Meh. Židk. Gaza.* Akademija Nauk SSSR. Izvestija Akademii Nauk SSSR. Serija Mehanika Židkosti i Gaza. (Moscow)
- Izv. Akad. Nauk SSSR Tehn. Kibernet.* Izvestija Akademii Nauk SSSR. Tehničeskaja Kibernetika. (Moscow) (Translated as: *Engng. Cybernetics*)
- Izv. Akad. Nauk Tadšk. SSR Otdel. Fiz.-Mat. i Geolog.-Him. Nauk.* Izvestija Akademii Nauk Tadžikskoi SSR. Otdelenie Fiziko-Matematičeskikh i Geologo-Himičeskikh Nauk. (Dushanbe) (Formerly: *Izv. Akad. Nauk Tadšk. SSR Otdel. Fiz.-Tehn. i Him. Nauk*)
- Izv. Akad. Nauk Tadšk. SSR Otdel. Fiz.-Tehn. i Him. Nauk.* Izvestija Akademii Nauk Tadžikskoi SSR. Otdelenie Fiziko-Tehničeskikh i Himičeskikh Nauk. (Dushanbe) (Continued as: *Izv. Akad. Nauk Tadšk. SSR Otdel. Fiz.-Mat. i Geolog.-Him. Nauk*)
- Izv. Akad. Nauk Turkmen. SSR Ser. Fiz.-Tehn. Him. Geol. Nauk.* Izvestija Akademii Nauk Turkmenakoi SSR. Serija Fiziko-Tehničeskikh, Himičeskikh i Geologičeskikh Nauk. (Ashkhabad)
- Izv. Akad. Nauk UzSSR Ser. Fiz.-Mat. Nauk.* Izvestija Akademii Nauk UzSSR. Serija Fiziko-Matematičeskikh Nauk. UzSSR Fanlar Akademijasining Ahboroti. Fizika-Matematika Fanlari Serijasi. (Tashkent)
- Izv. Kazan. Fil. Akad. Nauk SSSR Ser. Fiz.-Mat. i Tehn. Nauk.* Izvestija Kazanskogo Filiala Akademii Nauk SSSR. Serija Fiziko-Matematičeskikh i Tehničeskikh Nauk. (Kazan)
- Izv. Krym. Ped. Inst.* Izvestija Krymskogo Pedagogičeskogo Instituta im. M. V. Frunze. (Simferopol)
- Izv. Sibirek. Otd. Akad. Nauk SSSR.* Izvestija Sibirskogo Otdelenija. Akademija Nauk SSSR. (Novosibirsk)
- Izv. Vuzov = Izv. Vyssh. Učebn. Zaved. Matematika.*
- Izv. Vyssh. Učebn. Zaved. Aviacion. Tehn. Ministerstvo Vysshogo i Srednego Special'nogo Obrazovaniya SSSR.* Izvestija Vysshikh Učebnykh Zavedenii. Aviacionnaja Tehnika. (Kazan)
- Izv. Vyssh. Učebn. Zaved. Fizika. Ministerstvo Vysshogo i Srednego Special'nogo Obrazovaniya SSSR.* Izvestija Vysshikh Učebnykh Zavedenii Fizika. (Tomsk) (Translated as: *Soviet Physics J.*)
- Izv. Vyssh. Učebn. Zaved. Matematika. Ministerstvo Vysshogo Obrazovaniya SSSR.* Izvestija Vysshikh Učebnykh Zavedenii. Matematika. (Kazan)
- Izv. Vyssh. Učebn. Zaved. Radiofizika. Ministerstvo Vysshogo i Srednego Special'nogo Obrazovaniya SSSR.* Izvestija Vysshikh Učebnykh Zavedenii. Radiofizika. (Gorki) (Translated as: *Soviet Radiophys.*)
- J. Algebra.* Journal of Algebra. (New York)
- J. Amer. Statist. Assoc.* Journal of the American Statistical Association. (Washington, D.C.)
- J. Analyse Math.* Journal d'Analyse Mathématique. (Jerusalem)
- J. Annamalai Univ. Part B Sci.* Journal of the Annamalai University. Part B. Sciences. (Annamalainagar)
- J. Appl. Math. Mech.* Journal of Applied Mathematics and Mechanics. (Translation of the Soviet journal *Prikladnaja Matematika i Mehanika*). (New York) (Translation of *Prikl. Mat. Meh.*)
- J. Appl. Mech. Tech. Phys.* Journal of Applied Mechanics and Technical Physics. (Translation of *Ž. Prikl. Meh. i Tehn. Fiz.*) (New York)
- J. Appl. Probability.* Journal of Applied Probability. (East Lansing, Mich.)
- J. Approximation Theory.* Journal of Approximation Theory. (New York)
- J. Assoc. Comput. Mach.* Journal of the Association for Computing Machinery. (New York)
- J. Astronaut. Sci.* American Astronautical Society. Journal of the Astronautical Sciences. (Baltimore, Md.)
- J. Atmospheric Sci.* Journal of the Atmospheric Sciences. (Boston, Mass.)
- J. Austral. Math. Soc.* The Journal of the Australian Mathematical Society. (Sydney)
- J. China Univ. Sci. Techn.* Journal of the China University of Science and Technology. Zhongguo Kexue Jishu Daxue Xuebao. (Peking)
- J. College Arts Sci. Chiba Univ.* Journal of the College of Arts and Sciences, Chiba University. (Chiba)
- J. Combinatorial Theory.* Journal of Combinatorial Theory. (New York)
- J. Comput. System Sci.* Journal of Computer and System Sciences. (New York)
- J. Computational Phys.* Journal of Computational Physics. (New York)
- J. Cuneiform Studies.* Journal of Cuneiform Studies. (New Haven, Conn.)
- J. Differential Equations.* Journal of Differential Equations. (New York)
- J. Differential Geometry.* Journal of Differential Geometry. (Bethlehem, Pa.)
- J. Engng. Math.* Journal of Engineering Mathematics. (Groningen)
- J. Fac. Engng. Chiba Univ.* Journal of the Faculty of Engineering, Chiba University. (Chiba)
- J. Fac. Engng. Univ. Tokyo Ser. B.* Journal of the Faculty of Engineering. University of Tokyo. Series B. (Tokyo)
- J. Fac. Sci. Hokkaido Univ. Ser. I.* Journal of the Faculty of Science. Hokkaido University. Series I. Mathematics. (Sapporo)
- J. Fac. Sci. Shinshu Univ.* Journal of the Faculty of Science. Shinshu University. (Matsumoto)
- J. Fac. Sci. Univ. Tokyo Sect. I.* Journal of the Faculty of Science. University of Tokyo. Section I. Mathematics, Astronomy, Physics, Chemistry. (Tokyo)
- J. Fluid Mech.* Journal of Fluid Mechanics. (London)
- J. Franklin Inst.* Journal of the Franklin Institute. (Philadelphia, Pa.)
- J. Functional Analysis.* Journal of Functional Analysis. (New York)
- J. Gakugei Tokushima Univ.* Journal of Gakugei. Tokushima University. (Tokushima) (Continued as: *J. Math. Tokushima Univ.*)
- J. Indian Math. Soc.* The Journal of the Indian Mathematical Society. (Madras)
- J. Indian Statist. Assoc.* Journal of the Indian Statistical Association. (Bombay)
- J. Inst. Math. Appl.* Journal of the Institute of Mathematics and its Applications. (New York)
- J. Karnatak Univ. Sci.* Journal of the Karnatak University. Science. (Dharwar)
- J. London Math. Soc.* The Journal of the London Mathematical Society. (London)
- J. Madras Univ. B.* Journal of the Madras University. B. Contributions in Mathematics, Physical and Biological Sciences. (Madras)
- J. Math. Anal. Appl.* Journal of Mathematical Analysis and Applications. (New York)
- J. Math. and Phys.* Journal of Mathematics and Physics. (Cambridge, Mass.)
- J. Math. (Jabalpur).* Journal of Mathematics. (Jabalpur)
- J. Math. Kyoto Univ.* Journal of Mathematics of Kyoto University. (Kyoto)
- J. Math. Mech.* Journal of Mathematics and Mechanics. (Bloomington, Ind.)
- J. Math. Pures Appl.* Journal de Mathématiques Pures et Appliquées. (Paris)
- J. Math. Sci.* Journal of Mathematical Sciences. The Society of Mathematical Sciences. (Delhi)
- J. Math. Soc. Japan.* Journal of the Mathematical Society of Japan. (Tokyo)
- J. Math. Tokushima Univ.* Journal of Mathematics. Tokushima University. (Tokushima) (Formerly: *J. Gakugei Tokushima Univ.*)
- J. Mathematical Phys.* Journal of Mathematical Physics. (New York)
- J. Mathematical Psychology.* Journal of Mathematical Psychology. (New York)
- J. Mécanique.* Journal de Mécanique. (Paris)

# ABBREVIATIONS OF NAMES OF JOURNALS

- J. Mech. Phys. Solids.* Journal of the Mechanics and Physics of Solids. (London)
- J. Nanyang Univ.* Journal of Nanyang University. (Singapore)
- J. Natur. Sci. and Math.* The Journal of Natural Sciences and Mathematics. (Lahore)
- J. Operations Res. Soc. Japan.* Journal of the Operations Research Society of Japan. (Tokyo)
- J. Opt. Soc. Amer.* Journal of the Optical Society of America. (New York)
- J. Optimization Theory Appl.* Journal of Optimization Theory and Applications. (New York)
- J. Osaka Inst. Sci. Tech. Part I.* Journal of the Osaka Institute of Science and Technology. (Kinki University). Part I. Mathematics and Physics. (Osaka)
- J. Phys. Soc. Japan.* Journal of the Physical Society of Japan. (Tokyo)
- J. Reine Angew. Math.* Journal für die reine und angewandte Mathematik. (Berlin)
- J. Res. Nat. Bur. Standards Sect. B.* Journal of Research of the National Bureau of Standards. Section B. Mathematics and Mathematical Physics. (Washington, D.C.)
- J. Roy. Statist. Soc. Ser. A.* Journal of the Royal Statistical Society. Series A (General). (London)
- J. Roy. Statist. Soc. Ser. B.* Journal of the Royal Statistical Society. Series B (Methodological). (London)
- J. Sci. Engrg. Res.* Journal of Science and Engineering Research. (Kharagpur)
- J. Sci. Hiroshima Univ. Ser. A-I Math.* Journal of Science of the Hiroshima University. Series A-I (Mathematics). (Hiroshima)
- J. Sci. Res. Banaras Hindu Univ.* The Journal of Scientific Research of the Banaras Hindu University. (Banaras)
- J. Symbolic Logic.* The Journal of Symbolic Logic. (Providence, R.I.)
- J. Tsing Hua Univ.* Journal of Tsing Hua University. (Peking)
- J. Univ. Bombay.* Journal of the University of Bombay. (Bombay)
- Jadernaja Fiz. Akademija Nauk SSSR.* Jadernaja Fizika. (Moscow) (Translated as: *Soviet J. Nuclear Phys.*)
- Janus.* Janus. Revue Internationale de l'Histoire des Sciences, de la Médecine, de la Pharmacie et de la Technique. (Leiden)
- Japan. J. Math.* Science Council of Japan. Japanese Journal of Mathematics. (Tokyo)
- Jaroslav. Gos. Ped. Inst. Dokl. Naučn. Konfer.* Jaroslavl'skij Gosudarstvennyj Pedagogičeskij Institut. Doklady na Naučnyh Konferencijah. (Jaroslavl)
- Jber. Deutsch. Math.-Verein.* Jahresbericht der Deutschen Mathematiker-Vereinigung. (Stuttgart)
- Kabardino-Balkarsk. Gos. Univ. Učen. Zap.* Kabardino-Balkarskij Gosudarstvennyj Universitet. Učenyi Zapiski. (Formerly: *Kabardino-Balkarsk. Gos. Univ. Učen. Zap. Ser. Fiz.-Mat.*)
- Kabardino-Balkarsk. Gos. Univ. Učen. Zap. Ser. Fiz.-Mat.* Kabardino-Balkarskij Gosudarstvennyj Universitet. Učenyi Zapiski. (Nalchik) (Continued as: *Kabardino-Balkarsk. Gos. Univ. Učen. Zap.*)
- Kalinin. Gos. Ped. Inst. Učen. Zap.* Kalininskij Gosudarstvennyj Pedagogičeskij Institut im. M. I. Kalinina. Učenyi Zapiski. (Kalinin)
- Kaliningrad. Gos. Ped. Inst. Učen. Zap.* Kaliningradskij Gosudarstvennyj Pedagogičeskij Institut. Učenyi Zapiski. (Kaliningrad)
- Kazakh. Gos. Ped. Inst. Učen. Zap.* Kazahskij Gosudarstvennyj Pedagogičeskij Institut im. Abaja. Učenyi Zapiski. (Alma-Ata)
- Kazan. Gos. Univ. Učen. Zap.* Kazanskij Ordena Trudovogo Krasnogo Znameni Gosudarstvennyj Universitet im. V. I. Ul'janova-Lenina. Učenyi Zapiski. (Kazan)
- Keiei-Kagaku.* Keiei-Kagaku (Management Science). Japanese Operations Research Association. (Tokyo)
- Kemerov. Gos. Ped. Inst. Učen. Zap.* Kemerovskij Gosudarstvennyj Pedagogičeskij Institut. Učenyi Zapiski. (Kemerovo)
- Kezuo Tongbao.* Chinese Academy of Science. Kexue Tongbao (Science Bulletin). (Peking)
- Kezuo Tongbao (Foreign Lang. Ed.).* Academia Sinica. Kexue Tongbao (Science Bulletin) (Foreign Language Edition). (Peking)
- Kibernetika (Kiev).* Otdelenie Matematiki, Mekhaniki i Kibernetiki Akademii Nauk Ukrainako SSR. Kibernetika. (Kiev) (Translated as: *Cybernetics*)
- Kirov. Gos. Ped. Inst. Učen. Zap.* Kirovskij Gosudarstvennyj Pedagogičeskij Institut imeni V. I. Lenina. Učenyi Zapiski. (Yoshkar-Ola)
- Kišinev. Gos. Univ. Učen. Zap.* Ministerstvo Narodnogo Obrazovaniya Moldavako SSR. Kišinevskij Gosudarstvennyj Universitet. Učenyi Zapiski. (Kišinev)
- Knižnice Odborn. Véd. Spisá Vysoké. Učení Tech. v Brně.* Knižnice Odborných a Vědeckých Spisá Vysokého Učení Technického v Brně. Vysoké Učení Technické v Brně. (Brno)
- Kōdai Math. Sem. Rep.* Kōdai Mathematical Seminar Reports. (Tokyo)
- Kolomen. Ped. Inst. Učen. Zap.* Ministerstvo Prosvetšeniya RSFSR. Kolomenskij Pedagogičeskij Institut. Učenyi Zapiski. (Kolomna)
- Kostrom. Gos. Ped. Inst. Učen. Zap.* Kostromskij Gosudarstvennyj Pedagogičeskij Institut imeni N. A. Nekrasova. Učenyi Zapiski. (Jaroslavl)
- Krasnodar. Gos. Ped. Inst. Naučn. Trudy.* Krasnodarskij Gosudarstvennyj Pedagogičeskij Institut. Naučnye Trudy. (Krasnodar)
- Kulbyšev. Gos. Ped. Inst. Učen. Zap.* Ministerstvo Prosvetšeniya RSFSR. Kulbyševskij Gosudarstvennyj Pedagogičeskij Institut imeni V. V. Kulbyševa. Učenyi Zapiski. (Kuybyshev)
- Kumamoto J. Sci. Ser. A.* Kumamoto Journal of Science. Series A (Mathematics, Physics and Chemistry). (Kumamoto)
- Kungl. Tekn. Högsk. Handl. Stockholm.* Kungl. Tekniska Högskolans Handlingar. Transactions of the Royal Institute of Technology, Stockholm, Sweden. (Stockholm)
- Kybernetika (Prague).* Kybernetika. (Prague)
- Kyungpook Math. J.* Kyungpook National University. Kyungpook Mathematical Journal. (Taegu)
- Latvijas PSR Zinātņu Akad. Vēstis.* Latvijas PSR Zinātņu Akadēmijas Vēstis. Izvēstija Akademii Nauk Latvīsko SSR. (Riga)
- Latvijas PSR Zinātņu Akad. Vēstis Fiz. Tehn. Zinātņu Sēr.* Latvijas PSR Zinātņu Akadēmijas Vēstis. Fizikas un Tehnisko Zinātņu Sērija. Izvēstija Akademii Nauk Latvīsko SSR. Sērija Fiziskie un Tehniskie Nauk. (Riga)
- Latvijas Valsts Univ. Zinātņu Raksti.* PSRS Augstākās Izglītības Ministrija. Pēteris Stučka Latvijas Valsts Universitāte. Zinātniskie Raksti. Ministerstvo Vysshego Obrazovaniya. Latvīskij Gosudarstvennyj Universitet im. Petra Stučki. Učenyi Zapiski. (Riga)
- Leninabad. Gos. Ped. Inst. Učen. Zap.* Leninabadskij Gosudarstvennyj Pedagogičeskij Institut. Učenyi Zapiski. (Dushanbe)
- Leningrad. Gos. Ped. Inst. Učen. Zap.* Leningradskij Gosudarstvennyj Pedagogičeskij Institut im. A. I. Geroena. Učenyi Zapiski. (Leningrad)
- Leningrad. Gos. Univ. Učen. Zap. Ser. Mat. Nauk.* Leningradskij Gosudarstvennyj Ordena Lenina Universitet imeni. A. A. Ždanova. Učenyi Zapiski. Sērija Matemātiskie Nauk. (Leningrad)
- Leningrad. Inf.-Ēkonom. Inst. Trudy.* Leningradskij Inženerno-Ēkonomičeskij Institut imeni Pal'miro Tol'jatti. Trudy. (Leningrad)
- Leningrad. Politehn. Inst. Trudy.* Ministerstvo Vysshego i Srednego Special'nogo Obrazovaniya RSFSR. Leningradskij Politehniceskij Institut im. M. I. Kalinina. Trudy LPI. (Leningrad)
- Linear Algebra and Appl.* Linear Algebra and its Applications. (New York)
- Litovsk. Fiz. Sb.* Lietuvos TSR Mokslų Akademija. Lietuvos TSR Aukštojo Mokyklos. Lietuvos Fizikos Rinkiny. Akademija Nauk Litovsko SSR. Vysio Školy Litovsko SSR. Litovskij Fiziceskij Sbornik. (Vilnius)
- Litovsk. Mat. Sb.* Lietuvos TSR Mokslų Akademija. Lietuvos TSR Aukštojo Mokyklos. Lietuvos Matematikos Rinkiny. Akademija Nauk Litovsko SSR. Vysio Učebny Zavedeniya Litovsko SSR. Litovskij Matemāticeskij Sbornik. (Vilnius)

ABBREVIATIONS OF NAMES OF JOURNALS

- Logique et Analyse.* Logique et Analyse. (Louvain)
- L'voe. Politehn. Inst. Naučn. Zap. Ser. Fiz.-Mat.* MVO USSR. L'vovskii Politehnicheskii Institut. Naučnoye Zapiski. Seriya Fiziko-Matematičeskaja. (Lvov)
- Magnetohydrodynamics.* Magnetohydrodynamics. (A translation of *Magnitnaya Gidrodinamika* of the Academy of Sciences of the Latvian SSR). (New York) (Translation of *Magnit. Gidrodinamika*)
- Magnit. Gidrodinamika.* Akademija Nauk Latvīskoi SSR. Magnitnaja Gidrodinamika. (Riga) (Translated as: *Magnetohydrodynamics*)
- Magyar Tud. Akad. Mat. Fiz. Ost. Kész. A Magyar Tudományos Akadémia Matematikai és Fizikai Tudományok Osztályának Közleményei.* (Budapest)
- Mari. Gos. Ped. Inst. Učen. Zap.* Mariškii Gosudarstvennyi Pedagogičeskii Institut. Učenyje Zapiski. (Ioahkar-Ola)
- Mat. Časopis Sloven. Akad. Vied.* Matematički Časopis Slovenskeje Akademije Vied. (Bratislava)
- Mat.-Fys. Medd. Danske Vid. Selsk.* Matematiskfysiske Meddelelser udgivet af Det Kongelige Danske Videnskabernes Selskab. (Copenhagen)
- Mat.-Fys. Skr. Danske Vid. Selsk.* Matematiskfysiske Skrifter udgivet af Det Kongelige Danske Videnskabernes Selskab. (Copenhagen)
- Mat. Issled.* Akademija Nauk Moldavskoi SSR. Institut Matematiki s Vychislitel'nym Centrom. Matematičeskie Issledovaniya. (Kishinov)
- Mat. Lapok.* Matematikai Lapok. Bolyai János Matematikai Társulat. (Budapest)
- Mat. Sb.* Matematičeskii Sbornik. Novaja Seriya. (Moscow) (Translated as: *Math. USSR-Sb.*)
- Mat. Vesnik.* Društvo Matematičara, Fizičara i Astronoma SRB i Matematički Institut-Beograd. Matematički Vesnik. Nova Seriya. (Belgrade)
- Mat. Zametki.* Akademija Nauk Sojuza SSR. Matematičeskie Zametki. (Moscow) (Translated as: *Math. Notes*)
- Matematichesk (Catania).* Le Matematiche. (Catania)
- Math. Algorithms.* Massachusetts Institute of Technology. Mathematical Algorithms. (Cambridge, Mass.)
- Math. Ann.* Mathematische Annalen. (Berlin-Göttingen-Heidelberg)
- Math. Biosci.* Mathematical Biosciences: An International Journal. (New York)
- Math. Centrum Amsterdam Afd. Zuivere Wisk.* Mathematisch Centrum Amsterdam. Afdeling Zuivere Wiskunde. (Amsterdam)
- Math. Centrum Amsterdam Rekenafdeling.* Mathematisch Centrum Amsterdam. Rekenafdeling. (Amsterdam)
- Math. Comp.* Mathematics of Computation. (Washington, D.C.)
- Math. Gaz.* The Mathematical Gazette. (London)
- Math. J. Okayama Univ.* Mathematical Journal of Okayama University. (Okayama)
- Math. Japon.* Mathematica Japonicae. (Kobe)
- Math. Mag.* Mathematics Magazine. (Buffalo, N.Y.)
- Math. Nachr.* Mathematische Nachrichten. (Berlin)
- Mat. Notas.* Matematicas Notas. Boletín del Instituto de Matemática. (Rosario)
- Math. Notes.* Mathematical Notes of the Academy of Sciences of the USSR. (New York) (Translation of *Mat. Zametki*)
- Math.-Phys. Semesterber.* Mathematisch-Physikalische Semesterberichte. (Göttingen)
- Math. Reviews.* Mathematical Reviews. (Providence, R.I.) (Usually abbreviated as *MR* in the text of *Math. Reviews*)
- Math. Scand.* Mathematica Scandinavica. (Copenhagen)
- Math. Sci. Humaines.* Centre de Mathématique Sociale et de Statistique EPHE. Mathématiques et Sciences Humaines. (Paris)
- Math. Spect.* Mathematical Spectrum. (Oxford)
- Math. Student.* The Mathematics Student. (Madras)
- Math. Systems Theory.* Mathematical Systems Theory. (New York)
- Math. und Wirtschaft.* Mathematik und Wirtschaft. (Berlin)
- Math. USSR-Izv.* Mathematics of the USSR-Izvestiya. (Providence, R.I.) (Translation of *Izv. Akad. Nauk SSSR Ser. Mat.*)
- Math. USSR-Sb.* Mathematics of the USSR-Sbornik. (Providence, R.I.) (Translation of *Mat. Sb.*)
- Math. Z.* Mathematische Zeitschrift. (Berlin-Göttingen-Heidelberg)
- Mathematica (Cluj).* Societatea de Științe Matematice și Fizice din R.P.R. Filiala Cluj. Mathematica. (Cluj)
- Mathematika.* Mathematika. A Journal of Pure and Applied Mathematics. (London)
- Mathesis.* Mathesis. Recueil Mathématique à l'Usage des Écoles Spéciales et des Établissements d'Instruction Moyenne. (Mons)
- Matrix Tensor Quart.* The Tensor Club of Great Britain. The Matrix and Tensor Quarterly. (London)
- Mech. Teoret. Stos.* Polskie Towarzystwo Mechaniki Teoretycznej i Stosowanej. Mechanika Teoretyczna i Stosowana. (Warsaw)
- Med. Konink. Vlaamse Acad. Wetensch., Lett. Schone Kunst. België. Kl. Wetensch.* Mededelingen van de Koninklijke Vlaamse Academie voor Wetenschappen, Letteren en Schone Kunsten van België. Klasse der Wetenschappen. (Brussels)
- Modd. Lunds Univ. Mat. Sem.* Modellanden från Lunds Universitets Matematiska Seminarium. Communications du Séminaire Mathématique de l'Université de Lund. (Lund)
- Melekes. Gos. Ped. Inst. Učen. Zap.* Melekeskii Gosudarstvennyi Pedagogičeskii Institut. Učenyje Zapiski. (Melekes)
- Mem. Amer. Math. Soc.* Memoirs of the American Mathematical Society. (Providence, R.I.)
- Mem. Defense Acad.* Memoirs of the Defense Academy (Mathematics, Physics, Chemistry and Engineering) (Yokosuka)
- Mem. Fac. Ci. Univ. Habana Ser. Mat.* Memorias de la Facultad de Ciencias. Universidad de la Habana. Serie Matemática. (Havana)
- Mem. Fac. Engrg. Hiroshima Univ.* Memoirs of the Faculty of Engineering. Hiroshima University. (Hiroshima)
- Mem. Fac. Engrg. Miyazaki Univ.* Memoirs of the Faculty of Engineering. Miyazaki University. (Miyazaki)
- Mem. Fac. Lit. Sci. Shimane Univ. Natur. Sci.* Memoirs of the Faculty of Literature and Science Shimane University Natural Sciences. (Matsue)
- Mem. Fac. Sci. Kyushu Univ. Ser. A.* Memoirs of the Faculty of Science. Kyushu University. Series A. Mathematics. (Fukuoka)
- Mem. Kitami Inst. Tech.* Memoirs of the Kitami Institute of Technology. (Kitami)
- Mem. Mat. Inst. "Jorge Juan".* Consejo Superior de Investigaciones Científicas. Memorias de Matemática del Instituto "Jorge Juan". (Madrid)
- Mem. Muroran Inst. Tech.* Memoirs of the Muroran Institute of Technology. (Murooran)
- Mem. Osaka Gakugei Univ. B Natur. Sci.* Memoirs of Osaka Gakugei University B. Natural Sciences. (Osaka) (Continued as: *Mem. Osaka Kyoiku Univ. III Natur. Sci. Appl. Sci.*)
- Mem. Osaka Kyoiku Univ. III Natur. Sci. Appl. Sci.* Memoirs of Osaka Kyoiku University. III. Natural Science and Applied Science. (Osaka) (Formerly: *Mem. Osaka Gakugei Univ. B Natur. Sci.*)
- Mem. Real Acad. Ci. Art. Barcelona.* Memorias de la Real Academia de Ciencias y Artes de Barcelona. (Barcelona)
- Mem. Real Acad. Ci. Exact. Fis. Natur. Madrid.* Memorias de la Real Academia de Ciencias Exactas, Físicas y Naturales de Madrid. Serie de Ciencias Exactas. (Madrid)



ABBREVIATIONS OF NAMES OF JOURNALS

- Mem. School Sci. Engrg. Waseda Univ. Tokyo.* Memoirs of the School of Science and Engineering. Waseda University, Tokyo. (Tokyo)
- Mem. Soc. Astronom. Ital.* Memorie della Società Astronomica Italiana. (Milan)
- Mém. Soc. Roy. Sci. Liège Coll. in-8°.* Mémoires de la Société Royale des Sciences de Liège. Collection in-8°. (Liège)
- Mémor. Sci. Math.* Mémorial des Sciences Mathématiques. (Paris)
- Mémor. Sci. Phys.* Mémorial des Sciences Physiques. (Paris)
- Metody Vyčisl.* Leningradskii Ordena Lenina Gosudarstvennyi Universitet imeni A. A. Zdanova. Kafedra Vyčislitel'noi Matematiki i Vyčislitel'nyi Centr. Metody Vyčislenii. (Leningrad)
- Metrika.* Metrika. (Würzburg)
- Metroecon.* Metroeconomica. Rivista Internazionale di Economica. (Bologna)
- Metron.* Metron. (Rome)
- Michigan Math. J.* The Michigan Mathematical Journal. (Ann Arbor, Mich.)
- Mitt. Inst. Angew. Math. Zürich.* Mitteilungen aus dem Institut für angewandte Mathematik an der Eidgenössischen Technischen Hochschule in Zürich. (Zürich)
- Mitt. Math. Gesellsch. Hamburg.* Mitteilungen der mathematischen Gesellschaft in Hamburg. (Hamburg)
- Mitt. Math. Sem. Giessen.* Mitteilungen aus dem Mathematischen Seminar Giessen. (Giessen)
- Mitt. Verein. Schweiz. Versich.-Math.* Mitteilungen der Vereinigung Schweizerischer Versicherungsmathematiker. Bulletin de l'Association des Actuaires Suisses. (Bern)
- Molecular Phys.* Molecular Physics. (London)
- Monatsb. Deutsch. Akad. Wiss. Berlin.* Monatsberichte der Deutschen Akademie der Wissenschaften zu Berlin. (Berlin)
- Monatsb. Math.* Monatshefte für Mathematik. (Vienna)
- Moscow Univ. Bull. Ser. III Phys. Astronom.* Moscow University. Moscow University Bulletin. Series III. Physics and Astronomy. (Acton, Mass.) (Translation of *Vestnik Moskov. Univ. Ser. III Fiz. Astronom.*)
- Moskov. Gos. Ped. Inst. Učen. Zap.* Moskovskii Gosudarstvennyi Pedagogičeskii Institut im. V. I. Lenina. Učenyje Zapiski. (Moscow)
- Moskov. Gos. Univ. Soobšč. Gos. Astronom. Inst. Šternberg.* Moskovskii Gosudarstvennyi Universitet im. M. V. Lomonosova. Soobščeniija Gosudarstvennogo Astronomičeskogo Instituta im. P. K. Šternberga. (Moscow)
- Moskov. Gos. Univ. Trudy Gos. Astronom. Inst. Šternberg.* Moskovskii Gosudarstvennyi Universitet im. M. V. Lomonosova. Trudy Gosudarstvennogo Astronomičeskogo Instituta im. P. K. Šternberga. (Moscow)
- Moskov. Gos. Univ. Voprosy Meh.* Moskovskii Gosudarstvennyi Universitet. Voprosy Mehaniki. (Moscow)
- Moskov. Inst. Inž. Železnodorož. Transporta Trudy.* Moskovskii Institut Inženerov Železnodorožnogo Transporta. Trudy. (Moscow)
- Moskov. Oblast. Ped. Inst. Učen. Zap.* Moskovskii Oblastnoi Pedagogičeskii Institut. Učenyje Zapiski. (Moscow)
- M.R.* Mathematical Reviews. (Providence, R.I.)
- Nachr. Akad. Wiss. Göttingen Math.-Phys. Kl. II.* Nachrichten der Akademie der Wissenschaften in Göttingen. II. Mathematisch-Physikalische Klasse. (Göttingen)
- Nagoya Math. J.* Nagoya Mathematical Journal. (Nagoya)
- Nanta Math.* Nanyang University. Nanta Mathematica. (Singapore) (Formerly: *Bull. Math. Soc. Nanyang Univ.*)
- Nat. Bur. Standards Appl. Math. Ser.* National Bureau of Standards. Applied Mathematics Series. (Washington, D.C.)
- Natur. Sci. Rep. Ochanomizu Univ.* Natural Science Report of the Ochanomizu University. (Tokyo)
- Naval Res. Logist. Quart.* Naval Research Logistics Quarterly. (Washington, D.C.)
- Nederl. Akad. Wetensch. Indag. Math.* Koninklijke Nederlandse Akademie van Wetenschappen. Indagationes Mathematicae ex Aetis Quibus Titulus. Proceedings of the Section of Sciences. (Amsterdam) (Same as: *Nederl. Akad. Wetensch. Proc. Ser. A*)
- Nederl. Akad. Wetensch. Proc. Ser. A.* Koninklijke Nederlandse Akademie van Wetenschappen. Proceedings. Series A. Mathematical Sciences. (Amsterdam) (Same as: *Nederl. Akad. Wetensch. Indag. Math.*)
- Nederl. Akad. Wetensch. Proc. Ser. B.* Koninklijke Nederlandse Akademie van Wetenschappen. Proceedings. Series B. Physical Sciences. (Amsterdam)
- Nederl. Akad. Wetensch. Verslag Afd. Natuurk.* Koninklijke Nederlandse Akademie van Wetenschappen. Verslag van de Gewone Vergadering van de Afdeling Natuurkunde. (Amsterdam)
- Nieuw Arch. Wisk.* Nieuw Archief voor Wiskunde. (Groningen)
- Nigerian J. Sci.* University of Ibadan. Nigerian Journal of Science. (Ibadan)
- Nordisk Mat. Tidsskr.* Nordisk Matematisk Tidsskrift. (Oslo)
- Nordisk Tidsskr. Informations-Behandling.* Nordisk Tidsskrift for Informations-Behandling. (Copenhagen) See *Nordisk Tidsskr. Informations-Behandling (BIT)*.
- Nordisk Tidsskr. Informations-Behandling (BIT).* Nordisk Tidsskrift for Informations-Behandling. (Copenhagen) (Formerly listed as: *Nordisk Tidsskr. Informations-Behandling*)
- Norske Vid. Selsk. Forh. (Trondheim).* Det Kongelige Norske Videnskabs Selskabs Forhandlinger. (Trondheim)
- Norske Vid. Selsk. Skr. (Trondheim).* Det Kongelige Norske Videnskabs Selskabs Skrifter. (Trondheim)
- Notas Mat.* Notas de Matemática. (Rio de Janeiro)
- Notices Amer. Math. Soc.* Notices of the American Mathematical Society. (Providence, R.I.)
- Notre Dame J. Formal Logic.* Notre Dame Journal of Formal Logic. (Notre Dame, Ind.)
- Novgorod. Golovn. Gos. Ped. Inst. Učen. Zap.* Novgorodskii Golovnoi Gosudarstvennyi Pedagogičeskii Institut. Učenyje Zapiski. (Novgorod)
- Numer. Math.* Numerische Mathematik. (Berlin-Göttingen-Heidelberg)
- Nuovo Cimento A.* Il Nuovo Cimento A. (Bologna)
- Nuovo Cimento B.* Il Nuovo Cimento B. (Bologna)
- Nuovo Cimento Suppl.* Supplemento al Nuovo Cimento. (Bologna)
- Obzornik Mat. Fiz.* Društvo Matematikov, Fizikov in Astronomov SRŠ. Obzornik za Matematiko in Fiziko. (Ljubljana)
- Odess. Gos. Univ. Naučn. Ežegodnik.* Ministerstvo Vyšego i Srednego Special'nogo Obrazovaniija USSR. Odeskii Gosudarstvennyi Universitet. Naučnyi Ežegodnik. (Odessa)
- Operations Res.* Operations Research. The Journal of the Operations Research Society of America. (Baltimore, Md.) (Sometimes abbreviated as *OR* in *Math. Reviews*)
- Optica Acta.* Optica Acta. (London)
- Optimal. Planirovanie.* Optimal'noe Planirovanie. Akademija Nauk SSSR. Sibirskoe Otdelenie. Institut Matematiki. (Novosibirsk)
- Orehovo-Zuev. Ped. Inst. Učen. Zap. Kaf. Mat.* Ministerstvo Prosveščeniija RSFSR. Orekhovo-Zuevskii Pedagogičeskii Institut. Učenyje Zapiski Kafedry Matematiki. (Moscow)
- Orlov. Gos. Ped. Inst. Učen. Zap.* Orlovskii Gosudarstvennyi Pedagogičeskii Institut. Učenyje Zapiski. (Orel)
- Osaka J. Math.* Osaka Journal of Mathematics. (Osaka)
- Österreich. Akad. Wiss. Math.-Natur. Kl. S.-B. II.* Österreichische Akademie der Wissenschaften. Mathematisch-Naturwissenschaftliche Klasse. Sitzungsberichte. Abteilung II. Mathematik, Astronomie, Physik, Meteorologie und Technik. (Vienna)
- P.A.* Science Abstracts. Physics Abstracts. (London)

# ABBREVIATIONS OF NAMES OF JOURNALS

- Pacific J. Math.* Pacific Journal of Mathematics. (Berkeley, Calif.)
- Panjab Univ. J. Math. (Lahore).* Panjab University Journal of Mathematics. (Lahore)
- Papers and Proc. Roy. Soc. Tasmania.* Papers and Proceedings of the Royal Society of Tasmania. (Hobart)
- Penz. Politehn. Inst. Učen. Zap. Mat. Meh.* Penzenskii Politehnicheskii Institut. Matematika i Mehanika. Uchenye Zapiski. (Penza)
- Period. Mat.* Periodico di Matematiche. (Bologna)
- Perm. Gos. Univ. Učen. Zap.* Permskii Gosudarstvennyi Universitet imeni A. M. Gor'kogo. Uchenye Zapiski. (Perm)
- Perm. Politehn. Inst. Sb. Nauchn. Trud.* Permskii Politehnicheskii Institut. Sbornik Nauchnykh Trudov. (Perm)
- Philos. Sci.* Philosophy of Science. (Baltimore, Md.)
- Philos. Trans. Roy. Soc. London Ser. A.* Philosophical Transactions of the Royal Society of London. Series A. Mathematical and Physical Sciences. (London)
- Phys. Fluids.* The Physics of Fluids. (New York)
- Phys. Norveg.* Physica Norvegica. (Oslo)
- Phys. Rev.* The Physical Review. (New York)
- Physica.* Physics. Physique. Fizika. (Long Island, N.Y.)
- Physics Abstracts.* Science Abstracts. Physics Abstracts. (London) (Usually abbreviated *PA* in the text of *Math. Reviews*)
- Pokroky Mat. Fiz. Astronom.* Jednota Československých Matematiků a Fyziku. Pokroky Matematiky, Fyziky a Astronomie. (Prague)
- Polska Biblio. Analit. Mech.* Polska Akademia Nauk. Instytut Podstawowych Problemów Techniki. Polska Bibliografia Analizy. Mechanika. Polish Scientific Abstracts. Mechanics. (Warsaw)
- Portugal. Math.* Portugaliae Mathematica. (Lisbon)
- Portugal. Phys.* Portugaliae Physica. (Lisbon)
- Prace Inst. Maszyn Przeplywow.* Prace Instytutu Maszyn Przepływowych. Transactions of the Institute of Fluid-Flow Machinery. (Warsaw)
- Prace Mat. Roczniki Polskiego Towarzystwa Matematycznego. Seria I.* Prace Matematyczne. (Warsaw)
- Prakt. Akad. Athénén.* Πρακτικά τῆς Ἀκαδημίας Ἀθηνῶν. (Athens)
- Približ. Metod. Rešen. Differencial'. Uravnen.* Približennye Metody Resheniya Differentsial'nykh Uravnenii. (Kiev)
- Prikl. Mat. Meh.* Akademija Nauk SSSR. Otdelenie Tehnicheskikh Nauk. Institut Mehaniki. Prikladnaja Matematika i Mehanika. (Moscow) (Translated as: *J. Appl. Math. Mech.*)
- Prikladna. Meh.* Akademija Nauk Ukrainkoj SSR. Otdelenie Matematiki, Mehaniki i Kibernetiki. Prikladnaja Mehanika. (Kiev) (Translated as: *Soviet Appl. Mech.*)
- Primenen. Mat. Ekonom.* Leningradskii Ordena Lenina Gosudarstvennyi Universitet imeni A. A. Ždanova. Kafedra i Laboratorija Ekonomiko-Matematicheskikh Metodov. Primenenie Matematiki v Ekonomike. (Leningrad)
- Problems der Kybernetik.* Probleme der Kybernetik. (Berlin) (Translation of *Problemy Kibernet.*)
- Problems of Information Transmission.* Problems of Information Transmission. (New York) (Translation of *Problemy Peredati Informacii*)
- Problemy Kibernet.* Problemy Kibernetiki. (Moscow) (Translated as: *Systems Theory Res.*)
- Problemy Mat. Anal. Slof. Sistem.* Voronezhskii Gosudarstvennyi Universitet. Problemy Matematicheskogo Analiza Slofnykh Sistem. (Voronezh)
- Problemy Peredati Informacii.* Akademija Nauk SSSR. Institut Problem Peredati Informacii Akademii Nauk SSSR. Problemy Peredati Informacii. (Moscow) (Translated as: *Problems of Information Transmission*)
- Proc. Amer. Math. Soc.* Proceedings of the American Mathematical Society. (Providence, R.I.)
- Proc. Cambridge Philos. Soc.* Proceedings of the Cambridge Philosophical Society. (Cambridge, England)
- Proc. Edinburgh Math. Soc.* Proceedings of the Edinburgh Mathematical Society. (Edinburgh) (Contains *Proc. Edinburgh Math. Soc. Edinburgh Math. Notes*)
- Proc. Edinburgh Math. Soc. Edinburgh Math. Notes.* Proceedings of the Edinburgh Mathematical Society. Edinburgh Mathematical Notes. (Edinburgh) (Included in *Proc. Edinburgh Math. Soc.*)
- Proc. Fac. Sci. Tokai Univ.* Proceedings of the Faculty of Science of Tokai University. (Tokyo)
- Proc. Indian Acad. Sci. Sect. A.* Proceedings of the Indian Academy of Sciences. Section A. (Bangalore)
- Proc. Inst. Statist. Math.* The Proceedings of the Institute of Statistical Mathematics. (Tokyo)
- Proc. Iowa Acad. Sci.* Proceedings of the Iowa Academy of Science. (Des Moines, Iowa)
- Proc. Japan Acad.* Proceedings of the Japan Academy. (Tokyo)
- Proc. London Math. Soc.* Proceedings of the London Mathematical Society. (London)
- Proc. Math. Phys. Soc. U.A.R. (Egypt).* Proceedings of the Mathematical and Physical Society of U.A.R. (Egypt). (Cairo)
- Proc. Nat. Acad. Sci. India Sect. A.* Proceedings of the National Academy of Sciences, India. Section—A. (Allahabad)
- Proc. Nat. Acad. Sci. U.S.A.* Proceedings of the National Academy of Sciences of the United States of America. (Washington, D.C.)
- Proc. Nat. Inst. Sci. India Part A.* Proceedings of the National Institute of Sciences of India. Part A. Physical Sciences. (New Delhi)
- Proc. Pakistan Statist. Assoc.* Proceedings of the Pakistan Statistical Association. (Lahore)
- Proc. Rajasthan Acad. Sci.* The Proceedings of the Rajasthan Academy of Sciences. (Pilani)
- Proc. Roy. Irish Acad. Sect. A.* Proceedings of the Royal Irish Academy. Section A. (Dublin)
- Proc. Roy. Soc. Edinburgh Sect. A.* Proceedings of the Royal Society of Edinburgh. Section A. (Mathematical and Physical Sciences). (Edinburgh)
- Proc. Roy. Soc. Ser. A.* Proceedings of the Royal Society. Series A. Mathematical and Physical Sciences. (London)
- Proc. Steklov Inst. Math.* Proceedings of the Steklov Institute of Mathematics. (Providence, R.I.) (Translation of *Trudy Mat. Inst. Steklov.*)
- Proc. Vibration Problems.* Polish Academy of Sciences. Institute of Basic Technical Problems. Proceedings of Vibration Problems. (Warsaw)
- Proc. West Virginia Acad. Sci.* West Virginia University Bulletin. West Virginia Academy of Science. Proceedings. (Morgantown, W. Va.)
- Progr. Math.* See *Shuzue Jinzhan.*
- Progr. Math. (Allahabad).* Academy for Progress of Mathematics of the University of Allahabad. Progress of Mathematics. (Allahabad)
- Progr. Theoret. Phys.* Progress of Theoretical Physics. (Kyoto)
- Przegląd Statyst.* Sekcja Statystyki Polskiego Towarzystwa Ekonomicznego. Przegląd Statystyczny. (Warsaw)
- Pskov. Ped. Inst. Fiz.-Mat. Fak. Učen. Zap.* Ministerstvo Prosveshchenija RSFSR. Pskovskii Pedagogicheskii Institut. Fiziko-Matematicheskii Fakul'tet. Uchenye Zapiski. (Pskov)
- Psychometrika.* Psychometrika. A Journal Devoted to the Development of Psychology as a Quantitative Rational Science. (Chapel Hill, N.C.)

ABBREVIATIONS OF NAMES OF JOURNALS

- Publ. Centro Estudos Mat. Porto.* Publicações do Centro de Estudos Matemáticos do Porto. (Porto, Portugal)
- Publ. Dép. Math. (Lyon).* Publications du Département de Mathématiques. Faculté des Sciences de Lyon. (Lyon)
- Publ. Dept. Math. (Ljubljana).* University of Ljubljana. Institute of Mathematics, Physics and Mechanics. Publications of the Department of Mathematics. (Ljubljana)
- Publ. Inst. Math. (Beograd).* Institut Mathématique. Publications de l'Institut Mathématique. Nouvelle Série. (Belgrade)
- Publ. Inst. Statist. Univ. Paris.* Publications de l'Institut de Statistique de l'Université de Paris. (Paris)
- Publ. Math. Debrecen.* Publicationes Mathematicae. (Debrecen)
- Publ. Res. Inst. Math. Sci. Ser. A.* Publications of the Research Institute for Mathematical Sciences. Series A. (Kyoto)
- Publ. Res. Inst. Math. Sci. Ser. B.* Publications of the Research Institute for Mathematical Sciences. Series B. (Kyoto)
- Publ. Sémin. Géom. Univ. Neuchâtel.* Publications du Séminaire de Géométrie de l'Université de Neuchâtel. (Neuchâtel)
- Quart. Appl. Math.* Quarterly of Applied Mathematics. (Providence, R.I.)
- Quart. J. Math. Oxford Ser.* The Quarterly Journal of Mathematics, Oxford Second Series. (Oxford)
- Quart. J. Mech. Appl. Math.* The Quarterly Journal of Mechanics and Applied Mathematics. (Oxford)
- Quart. Rev. Sci. Publ.* Polish Academy of Sciences. Distribution Centre for Scientific Publications. Quarterly Review of Scientific Publications. (Warsaw)
- RAAG Res. Notes.* RAAG Research Notes. (Tokyo)
- Rad Jugoslav. Akad. Znan. Umjet.* Rad Jugoslavenake Akademije Znanosti i Umjetnosti. (Zagreb)
- Radio Engng. Electron. Phys.* Radio Engineering and Electronic Physics. (Translation of *Radiotekhnika i Elektronika*, a U.S.S.R. Academy of Sciences Publication). (New York) (Translation of *Radiotekhn. i Elektron.*)
- Radio Sci.* Radio Science. (Washington, D.C.)
- Radiotekhn. (Har'kov).* Har'kovskii Ordena Trudovogo Krasnogo Znameni Gosudarstvennyi Universitet imeni A. M. Gor'kogo. Radiotekhnika. (Kharkov)
- Radiotekhn. i Elektron.* Akademija Nauk SSSR. Radiotekhnika i Elektronika. (Moscow) (Translated as: *Radio Engng. Electron. Phys.*)
- Ratio.* Ratio. (Oxford)
- Rend. Accad. Sci. Fis. Mat. Napoli.* Società Nazionale di Napoli. Rendiconto dell'Accademia delle Scienze Fisiche e Matematiche. (Naples)
- Rend. Circ. Mat. Palermo.* Rendiconti del Circolo Matematico di Palermo. (Palermo)
- Rend. Mat. e Appl.* Università di Roma. Istituto Nazionale di Alta Matematica. Rendiconti di Matematica e delle sue Applicazioni. (Rome)
- Rend. Sem. Fac. Sci. Univ. Cagliari.* Rendiconti del Seminario della Facoltà di Scienze della Università di Cagliari. (Cagliari)
- Rend. Sem. Mat. Fis. Milano.* Rendiconti del Seminario Matematico e Fisico di Milano. (Milan)
- Rend. Sem. Mat. Univ. Padova.* Rendiconti del Seminario Matematico dell'Università di Padova. (Padua)
- Rep. Fac. Sci. Shizuoka Univ.* Shizuoka University. Faculty of Science. Reports of the Faculty of Science. Shizuoka University. (Shizuoka)
- Rep. Inst. Sci. Tech. Univ. Tokyo.* The Reports of the Institute of Science and Technology, University of Tokyo. (Tokyo)
- Rep. Res. Inst. Strength and Fracture of Materials. Tohoku Univ.* Reports of the Research Institute for Strength and Fracture of Materials. Tohoku University. (Sendai)
- Rep. Statist. Appl. Res. Un. Japan. Sci. Engrs.* Reports of Statistical Application Research, Union of Japanese Scientists and Engineers. (Tokyo)
- Repúb. Venezuela Bol. Acad. Ci. Fis. Mat. Natur.* República de Venezuela. Boletín de la Academia de Ciencias Físicas, Matemáticas y Naturales. (Caracas)
- Res. Rep. Anan Tech. College.* Research Reports of the Anan Technical College. (Anan)
- Res. Rep. Nagaoka Tech. College.* Research Reports of the Nagaoka Technical College. (Nagaoka)
- Res. Rep. Tokyo Electrical Engng. College.* Research Reports of Tokyo Electrical Engineering College. (Tokyo)
- Rev. Acad. Ci. Madrid.* Revista de la Real Academia de Ciencias Exactas, Físicas y Naturales de Madrid. (Madrid)
- Rev. Acad. Ci. Zaragoza.* Revista de la Academia de Ciencias Exactas, Físico-Químicas y Naturales de Zaragoza. (Zaragoza)
- Rev. CETHEDEC.* Revue du Centre d'Études Théoriques de la Détection et des Communications. (Paris)
- Rev. Ci. (Lima).* Revista de Ciencias. (Lima)
- Rev. Colombiana Mat.* Revista Colombiana de Matemáticas. (Bogotá) (Formerly: *Rev. Mat. Elem.*)
- Rev. Fac. Ci. Univ. Coimbra.* Revista de Faculdade de Ciências da Universidade de Coimbra. (Coimbra)
- Rev. Française Informat. Recherche Opérationnelle.* Association Française d'Informatique et de Recherche Opérationnelle. Revue Française d'Informatique et de Recherche Opérationnelle. (Paris)
- Rev. Française Traitement Information Chiffres.* Revue Française de Traitement de l'Information. Chiffres. (Paris)
- Rev. Histoire Sci. Appl.* Revue d'Histoire des Sciences et de leurs Applications. (Paris)
- Rev. Inst. Internat. Statist.* Revue de l'Institut International de Statistique. Review of the International Statistical Institute. (The Hague)
- Rev. Mat. Elem.* Revista de Matemáticas Elementales. (Bogotá) (Continued as: *Rev. Colombiana Mat.*)
- Rev. Mat. Hisp.-Amer.* Revista Matemática Hispano-Americana. (Madrid)
- Rev. Mexicana Fis.* Revista Mexicana de Física. (Mexico City)
- Rev. Modern Phys.* Reviews of Modern Physics. (New York)
- Rev. Roumaine Math. Pures Appl.* Académie de la République Populaire Roumaine. Revue Roumaine de Mathématiques Pures et Appliquées. (Bucharest)
- Rev. Roumaine Sci. Tech. Sér. Méc. Appl.* Revue Roumaine des Sciences Techniques. Série de Mécanique Appliquée. (Bucharest)
- Rev. Un. Mat. Argentina.* Revista de la Unión Matemática Argentina. (Buenos Aires)
- Rice Univ. Studies.* Rice University Studies. (Houston, Tex.)
- Ricerca (Napoli).* La Ricerca. Rivista di Matematiche Pure ed Applicate. (Naples)
- Ricerche Mat.* Ricerche di Matematica. (Naples)
- Rīgas Politehn. Inst. Zinātn. Rakst.* Rīgas Politehniskais Institūts. Rīsiņskā Politehniskā Institūta. Učēnye Zapiski. Rīgas Politehniskais Institūts Zinātniskie Raksti. (Riga)
- Riv. Mat. Univ. Parma.* Rivista di Matematica della Università di Parma. (Parma)
- Riv. Nuovo Cimento.* Rivista del Nuovo Cimento. (Bologna)
- Rjzansk. Gos. Ped. Inst. Učen. Zap.* Rjzanskii Gosudarstvennyi Pedagogičeskii Institut. Učēnye Zapiski. (Ryazan)
- Rostov-na-Donu Gos. Ped. Inst. Fiz.-Mat. Fak. Učen. Zap.* Rostovskii-na-Donu Gosudarstvennyi Pedagogičeskii Institut. Fiziko-Matematičeskii Fakul'tet. Učēnye Zapiski. (Rostov-on-Don)



ABBREVIATIONS OF NAMES OF JOURNALS

- Rozprawy Československé Akad. Věd.* Rozprawy Československé Akademie Věd. (Prague) See *Rozprawy Československé Akad. Věd. Řada Mat. Přírod. Věd.*
- Rozpravy Československé Akad. Věd. Řada Mat. Přírod. Věd.* Rozpravy Československé Akademie Věd. Řada Matematických a Přírodních Věd. (Prague) (Formerly listed as: *Rozprawy Československé Akad. Věd.*)
- Rozprawy Inst. Polaka Akademii Nauk. Instytut Podstawowych Problemów Techniki. Rozprawy Inżynierskie.* (Warsaw)
- Russian Math. Surveys.* Russian Mathematical Surveys. (A translation of the survey articles and of selected biographical articles in *Uspehi Matematicheskikh Nauk*). (London) (Translation of *Uspehi Mat. Nauk*)
- RZAutomat. Telemek. i Vychisl. Tehn.* Akademiya Nauk SSSR. Institut Naučnoj Informacii. Referativnyi Zhurnal. Avtomatika, Telemekhanika i Vychislitel'naya Tehnika. (Moscow)
- RZFiz.* Akademiya Nauk SSSR. Institut Naučnoj Informacii. Referativnyi Zhurnal. Fizika. (Moscow)
- RZKibernet.* Akademiya Nauk SSSR. Institut Naučnoj Informacii. Referativnyi Zhurnal. Kibernetika. (Moscow)
- RZMat.* Akademiya Nauk SSSR. Institut Naučnoj Informacii. Referativnyi Zhurnal. Matematika. (Moscow)
- RZMek.* Akademiya Nauk SSSR. Institut Naučnoj Informacii. Referativnyi Zhurnal. Mekhanika. (Moscow)
- Sakharth. SSR Mecn. Akad. Gamoteli. Centr. Šrom.* Sakharthvelos SSR Mecnierebatha Akademia Gamotviliti Centris Šromebl. (Tbilisi) (Formerly listed as: *Trudy Vychisl. Centra Akad. Nauk Gruzin. SSR*)
- Sakharth. SSR Mecn. Akad. Math. Inst. Šrom.* Sakharthvelos SSR Mecnierebatha Akademia A. Razmadzis Sahelobis Tbilisis Matematikis Institutis. Šromebl. (Tbilisi) (Formerly listed as: *Akad. Nauk Gruzin. SSR Trudy Tbilis. Mat. Inst. Razmadze*)
- Sakharth. SSR Mecn. Akad. Moambe.* Sakharthvelos SSR Mecnierebatha Akademii Moambe. (Tbilisi) (Formerly listed as: *Soobš. Akad. Nauk Gruzin. SSR*)
- Sankhyā Ser. A.* Sankhyā (Statistics). The Indian Journal of Statistics. Series A. (Calcutta)
- Sankhyā Ser. B.* Sankhyā (Statistics). The Indian Journal of Statistics. Series B. (Calcutta)
- S.-B. Berlin. Math. Ges.* Sitzungsberichte der Berliner Mathematischen Gesellschaft. (Berlin)
- S.-B. Heidelberger Akad. Wiss. Math.-Natur. Kl.* Sitzungsberichte der Heidelberger Akademie der Wissenschaften. Mathematisch-Naturwissenschaftliche Klasse. (Heidelberg)
- S.-B. Sachs. Akad. Wiss. Leipzig Math.-Natur. Kl.* Sitzungsberichte der Sächsischen Akademie der Wissenschaften zu Leipzig. Mathematisch-naturwissenschaftliche Klasse. (Berlin)
- Sb. Prací Ped. Fak. v Ostravě Ser. A 1.* Sborník Prací Pedagogické Faculty v Ostravě. Seria A 1. (Ostrava)
- Sb. Voj. Akad. (Brno).* Sborník Vojenské Akademie Antonína Zápotockého. (Brno)
- Sb. Vysoké. Učení Tech. Brno.* Sborník Vysokého Učení Technického v Brně. (Brno)
- Schr. Math. Inst. Univ. Münster.* Schriftenreihe des Mathematischen Instituts der Universität Münster. (Münster)
- Sci. Abstracts China Sect. Math. Phys. Sci.* Institute of Scientific and Technical Information of China. Science Abstracts of China. Mathematical and Physical Sciences. (Peking)
- Sci. Papers College Gen. Ed. Univ. Tokyo.* Scientific Papers of the College of General Education. University of Tokyo. (Tokyo)
- Sci. Rep. Fac. Ed. Gifu Univ. Natur. Sci.* Science Reports of the Faculty of Education. Gifu University. (Natural Science). (Gifu) (Formerly: *Sci. Rep. Fac. Lib. Arts. Ed. Gifu Univ. Natur. Sci.*)
- Sci. Rep. Fac. Lib. Arts. Ed. Gifu Univ. Natur. Sci.* Science Report of the Faculty of Liberal Arts and Education, Gifu University. (Natural Science). (Gifu) (Continued as: *Sci. Rep. Fac. Ed. Gifu Univ. Natur. Sci.*)
- Sci. Rep. Hiroaki Univ.* Science Reports of the Hiroaki University. (Hiroaki)
- Sci. Rep. Kagoshima Univ.* Science Reports of the Kagoshima University. (Kagoshima)
- Sci. Rep. Kanazawa Univ.* The Science Reports of the Kanazawa University. (Kanazawa)
- Sci. Rep. Niigata Univ. Ser. A.* Science Reports of Niigata University. Series A (Mathematics). (Niigata)
- Sci. Rep. Res. Inst. Theoret. Phys. Hiroshima Univ.* Scientific Reports of the Research Institute for Theoretical Physics, Hiroshima University. (Hiroshima)
- Sci. Rep. Saitama Univ. Ser. A.* The Science Reports of the Saitama University. Series A. Mathematics, Physics and Chemistry. (Urawa)
- Sci. Rep. Tokyo Kyoiku Daigaku Sect. A.* Science Reports of the Tokyo Kyoiku Daigaku (Tokyo University of Education). Section A. (Tokyo)
- Sci. Rep. Yokohama Nat. Univ. Sect. I.* Science Reports of the Yokohama National University. Section I. Mathematics, Physics. (Yokohama)
- Sci. Sinica.* Scientia Sinica. (Peking)
- Scientia (Valparaiso).* Universidad Técnica Federico Santa María. Scientia. (Valparaiso)
- Scripta Math.* Scripta Mathematica. A Quarterly Journal Devoted to the Philosophy, History, and Expository Treatment of Mathematics. (New York)
- Sem. Math. V. A. Steklov Math. Inst. Leningrad.* Seminars in Mathematics V. A. Steklov Mathematical Institute Leningrad. (New York) (Translation of *Zap. Nauch. Sem. Leningrad. Otdel. Mat. Inst. Steklov. (LOMI)*)
- Shengzue Xuebao.* See *Acta Acust. Sinica*.
- Shuxue Jinzhan.* Chinese Mathematical Society. Academia Sinica. Shuxue Jinzhan (Progress in Mathematics). (Peking)
- SIAM J. Appl. Math.* SIAM Journal on Applied Mathematics. (Philadelphia, Pa.)
- SIAM J. Control.* SIAM Journal on Control. (Philadelphia, Pa.)
- SIAM J. Numer. Anal.* SIAM Journal on Numerical Analysis. (Philadelphia, Pa.)
- SIAM Rev.* SIAM Review. A Publication of the Society for Industrial and Applied Mathematics. (Philadelphia, Pa.)
- Siberian Math. J.* Siberian Mathematical Journal. (New York) (Translation of *Sibirsk. Mat. Ž.*)
- Sibirsk. Mat. Ž.* Akademiya Nauk SSSR. Sibirskoe Otdelenie Sibirskii Matematicheskii Zhurnal. (Moscow) (Translated as: *Siberian Math. J.*)
- Simon Stevin.* Simon Stevin. Wis- en Natuurkundig Tijdschrift. (Groningen-Djakarta)
- Skand. Aktuarietidskr.* Skandinavisk Aktuarietidskrift. (Uppsala)
- Smolensk. Gos. Ped. Inst. Učen. Zap.* Smolenskii Gosudarstvennyi Pedagogičeskii Institut. Učenyje Zapiski. (Smolensk)
- Soc. Actuar. Trans.* Society of Actuaries. Transactions. (Chicago, Ill.)
- Soc. Parana. Mat. Anuário.* Anuário da Sociedade Paranaense de Matemática. (Curitiba)
- Soc. Sci. Fenn. Comment. Phys.-Math.* Societas Scientiarum Fennica. Commentationes Physico-Mathematicae. (Helsinki)
- Soobš. Akad. Nauk Gruzin. SSR.* Soobščenija Akademii Nauk Gruzinskoi SSR. (Tbilisi) See *Sakharth. SSR Mecn. Akad. Moambe*.
- Soviet Appl. Mech.* Soviet Applied Mechanics. (New York) (Translation of *Prikladna. Meh.*)
- Soviet J. Nuclear Phys.* American Institute of Physics. Soviet Journal of Nuclear Physics. (New York) (Translation of *Jadernaja Fiz.*)

ABBREVIATIONS OF NAMES OF JOURNALS

*Soviet Math. Dokl.* Soviet Mathematics. Doklady. (A translation of the mathematics section of *Doklady Akademii Nauk SSSR*). (Providence, R.I.) (Translation of mathematics section of *Dokl. Akad. Nauk SSSR*)

*Soviet Physics Acoust.* Soviet Physics. Acoustics. (A translation of *Akusticheskii Zhurnal* of the Academy of Sciences of the USSR). (New York) (Translation of *Akust. Zh.*)

*Soviet Physics Dokl.* Soviet Physics. Doklady. (A translation of the physics sections of *Doklady Akademii Nauk SSSR*). (New York) (Translation of physics sections of *Dokl. Akad. Nauk SSSR*)

*Soviet Physics J.* Soviet Physics Journal. (New York) (Translation of *Izv. Vysš. Učebn. Zaved. Fizika*)

*Soviet Physics JETP.* Soviet Physics. JETP. (A translation of *Ž. Ėksperimental'noi i Teoreticheskoi Fiziki* of the USSR). (New York) (Translation of *Ž. Ėksper. Teoret. Fiz.*)

*Soviet Radiophys.* Soviet Radiophysics. (A translation of the *Izvestiya Vysših Učebnyh Zavedenii Radiofizika* of the Ministry of Higher Education of the USSR). (New York) (Translation of *Izv. Vysš. Učebn. Zaved. Radiofizika*)

*Spisy Ped. Fak. v Ostravě.* Spisy Pedagogické Fakulty v Ostravě. (Ostrava)

*Spisy Přírod. Fak. Univ. Brno.* Spisy Přírodovědecké Fakulty University v Brně. Trudy Estestvenno-Istoričeskogo Fakul'teta Universiteta v g. Brno. Publications de la Faculté des Sciences de l'Université à Brno. (Brno)

*Statist. Theory Method Abstracts.* Statistical Theory and Method Abstracts. (London)

*Statistica (Bologna).* Statistica. (Bologna)

*Statistica Neerlandica.* Statistica Neerlandica. Organ van de Vereniging voor Statistiek. (The Hague)

*Stroje na Zpracování Informací.* Československá Akademie Věd. Výzkumný Ústav Matematických Strojů. Research Institute of Mathematical Machines. Isledovatel'skii Institut Matematicheskikh Mašin. Stroje na Zpracování Informací. (Prague)

*Stud. Cerc. Mat.* Studii și Cercetări Matematice. (Bucharest)

*Stud. Cerc. Mec. Apl.* Studii și Cercetări de Mecanică Aplicată. (Bucharest)

*Studia Logica.* Polska Akademia Nauk. Komitet Filozoficzny. Studia Logica. (Warsaw)

*Studia Math.* Polska Akademia Nauk. Studia Mathematica. (Warsaw)

*Studia Sci. Math. Hungar.* Consilium Instituti Mathematici Academiae Scientiarum Hungaricae. Studia Scientiarum Mathematicarum Hungaricae. (Budapest)

*Studia Univ. Babeş-Bolyai Ser. Math.-Phys.* Studia Universitatis Babeş-Bolyai. Series Mathematica-Physica. (Cluj)

*Sōgaku.* Mathematical Society of Japan. Sōgaku (Mathematics). (Tokyo)

*Su-hak kwa Mul-li.* Academy of Science of the People's Democratic Republic of Korea. Research Center for Physics and Mathematics. Su-hak kwa Mul-li (Mathematics and Physics). (Pyongyang)

*Summa Brasil. Math.* Summa Brasiliensis Mathematicae. (Rio de Janeiro)

*Sverdlovsk. Gos. Ped. Inst. Učen. Zap.* Sverdlovskii Gosudarstvennyi Pedagogičeskii Institut. Učenyje Zapiski. (Sverdlovsk)

*Systems Theory Res.* Systems Theory Research. (New York) (Translation of *Problems in Cybernet.*)

*Tadžik. Gos. Univ. Učen. Zap.* Tadžikskii Gosudarstvennyi Universitet im. V. I. Lenina. Učenyje Zapiski. Trudy Fiziko-Matematicheskogo Fakul'teta. Serija Matematicheskaja. (Dushanbe)

*Tallin. Politehn. Inst. Toimetised Ser. A.* Tallinna Politehnilise Instituudi Toimetised Seria A. (Tallin)

*Tartu Riikl. Ül. Toimetised.* Tartu Riikliku Ülikooli Toimetised. Učenyje Zapiski Tartuskogo Gosudarstvennogo Universiteta. Matematika-Loodusteaduskonna Töid. Trudy Estestvenno-Matematicheskogo Fakul'teta. (Tartu)

*Tashkent. Gos. Ped. Inst. Učen. Zap.* Ministerstvo Prosveščenija Uzbekskoi SSR. Tashkentskii Gosudarstvennyi Pedagogičeskii Institut im. Nizami. Učenyje Zapiski. (Tashkent)

*Tashkent. Gos. Univ. Naučn. Trudy.* Tashkentskii Gosudarstvennyi Universitet. Naučnye Trudy. (Tashkent)

*Tashkent. Politehn. Inst. Naučn. Trudy.* Ministerstvo Vysšego i Srednego Special'nogo Obrazovaniya. Tashkentskii Politehnicheskii Institut. Naučnye Trudy. Novaja Serija. (Tashkent)

*Tashkent. Tekstil. Inst. Kaf. Vysš. Mat. Sb. Naučn.-Issled. Rabot Ser. Mat.* Tashkentskii Tekstil'nyi Institut. Kafedra Vysšei Matematiki. Sbornik Naučno-Issledovatel'skikh Rabot. Serija Matematiki. (Tashkent)

*Tbilis. Gos. Univ. Trudy Ser. Fiz. Nauk.* Tbilisskii Gosudarstvennyi Universitet. Trudy. Serija Fizicheskikh Nauk. (Tbilisi) See *Tbilis. Sahelmc. Univ. Šrom. Fiz. Mecn. Ser.*

*Tbilis. Gos. Univ. Trudy Ser. Meh.-Mat. Nauk.* Tbilisskii Gosudarstvennyi Universitet. Trudy. Serija Mehaniko-Matematicheskikh Nauk. (Tbilisi) See *Tbilis. Sahelmc. Univ. Šrom. Mekh.-Math. Mecn. Ser.*

*Tech. Mitt. Krupp.* Technische Mitteilungen Krupp. (Essen)

*Tech. Rep. Osaka Univ.* Technology Reports of the Osaka University. (Osaka)

*Technometrics.* Technometrics. A Journal of Statistics for the Physical, Chemical and Engineering Sciences. (Princeton, N.J.)

*Tellus.* Svenska Geofysiska Föreningen. Tellus. A Quarterly Journal of Geophysics. (Uppsala)

*Tensor.* Tensor. New Series. The Tensor Society. (Tokyo)

*Teor. Funkcii Funkcional. Anal. i Prilozhen.* Har'kovskii Ordena Trudovogo Kraanogo Znamenii Gosudarstvennyi Universitet imeni A. M. Gor'kogo. Teorija Funkcii, Funkcional'nyi Analiz i ih Prilozheniya. (Kharkov)

*Teor. Verojatnost. i Primenen.* Akademija Nauk SSSR. Teorija Verojatnostei i ee Primeneniya. (Moscow) (Translated as: *Theor. Probability Appl.*)

*Teoret. Ėlektrotehn.* L'vovskii Gosudarstvennyi Universitet. Teoreticheskaja Ėlektrotehnika. (Lvov)

*Teoret. Prikl. Mat.* MVSSO URSR L'viva'kii Ordena Lenina Derzavnii Universitet im. Iv. Franka. Teoretichna i Prikladna Matematika. (Lvov)

*Thalès.* Thalès. Recueil Annuel des Travaux de l'Institut d'Histoire des Sciences et des Techniques de l'Université de Paris. (Paris)

*Tbilis. Sahelmc. Univ. Šrom. Mekh.-Math. Mecn. Ser.* Tbilisskii Sahelmcipho Universiteti. Šromebi. Mekhanika-Matematikiš Mecnierebatha Seria. (Tbilisi) (Formerly listed as: *Tbilis. Gos. Univ. Trudy Ser. Meh.-Mat. Nauk*)

*Tbilis. Sahelmc. Univ. Šrom. Fiz. Mecn. Ser.* Tbilisskii Sahelmcipho Universiteti. Šromebi. Fizikiš Mecnierebatha Seria. (Tbilisi) (Formerly listed as: *Tbilis. Gos. Univ. Trudy Ser. Fiz. Nauk*)

*Theor. Probability Appl.* Theory of Probability and its Applications. (An English translation of the Soviet journal *Teorija Verojatnostei i ee Primeneniya*). (Philadelphia, Pa.) (Translation of *Teor. Verojatnost. i Primenen.*)

*Theoria.* Theoria. A Swedish Journal of Philosophy. (Lund)

*Tiraspol. Gos. Ped. Inst. Učen. Zap.* Tiraspol'skii Gosudarstvennyi Pedagogičeskii Institut im. T. G. Ševčenko. Učenyje Zapiski. (Kishinev)

*Tjumen. Gos. Ped. Inst. Učen. Zap.* Ministerstvo Prosveščenija RSFSR. Tjumen'skii Gosudarstvennyi Pedagogičeskii Institut. Učenyje Zapiski. (Tyumen)

*Tōhoku Math. J.* The Tōhoku Mathematical Journal. (Sendai)

*Tomsk. Gos. Univ. Učen. Zap.* Tomskii Gosudarstvennyi Universitet im. V. V. Kuibysheva. Učenyje Zapiski. (Tomsk)

*Topology.* Topology. An International Journal of Mathematics. (Oxford)

*Trabajos Estadist.* Trabajos de Estadística. (Madrid)

*Trans. Amer. Math. Soc.* Transactions of the American Mathematical Society. (Providence, R.I.)

ABBREVIATIONS OF NAMES OF JOURNALS

- Trans. ASME Ser. E. J. Appl. Mech.* Transactions of the ASME. Series E. Journal of Applied Mechanics. (New York)
- Trans. Moscow Math. Soc.* Transactions of the Moscow Mathematical Society. (Providence, R.I.) (Translation of *Trudy Moskov. Mat. Obšč.*)
- Trans. New York Acad. Sci.* Transactions of the New York Academy of Sciences. (New York)
- Trans. Roy. Soc. South Africa.* Transactions of the Royal Society of South Africa. (Cape Town)
- Transportation Sci.* Operations Research Society of America. Transportation Science Section. Transportation Science. (Baltimore, Md.)
- TRU Math.* TRU Mathematics. (Tokyo)
- Trudy Akad. Nauk Litov. SSR Ser. B.* Lietuvos TSR Mokslų Akademijos Darbai. Serija B. Akademii Nauk Litovskoi SSR. Trudy. Serija B. (Vilnius)
- Trudy Fis. Inst. Lebedev.* Akademija Nauk SSSR. Trudy Fizicheskogo Instituta im. P. N. Lebedeva. (Moscow)
- Trudy Geometr. Sem.* Akademija Nauk SSSR. Institut Naučnoi Informacii. VINITI. Trudy Geometričeskogo Seminara. (Moscow)
- Trudy Inst. Istor. Estestvozn. Tehn.* Akademija Nauk SSSR. Trudy Instituta Istorii Estestvoznaniia i Tshniki. (Moscow)
- Trudy Kazan. Aviacion. Inst.* Trudy Kazanskogo Aviacionnogo Instituta. Matematika i Mehanika. (Kazan)
- Trudy Leningrad. Tehn. Inst. Trudy Kafedr Meh. Fak.* Ministerstvo Vysshego Obrazovaniia SSSR. Trudy Leningradskogo Tekhnologicheskogo Instituta imeni Lensoвета. Trudy Kafedr Mehanicheskogo Fakul'teta. (Leningrad)
- Trudy Mat. Inst. Steklov.* Akademija Nauk Sojuz Sovetskikh Socialisticheskikh Respublik. Trudy Matematicheskogo Instituta im. V. A. Steklova. (Moscow-Leningrad) (Translated as: *Proc. Steklov Inst. Math.*)
- Trudy Moskov. Mat. Obšč.* Trudy Moskovskogo Matematicheskogo Obščestva. (Moscow) (Translated as: *Trans. Moscow Math. Soc.*)
- Trudy Moskov. Orden. Lenin. Energet. Inst.* Ministerstvo Vysshego i Srednego Special'nogo Obrazovaniia RSFSR. Trudy Moskovskogo Ordena Lenina Energeticheskogo Instituta. (Moscow)
- Trudy Naučn. Ob'ed. Prepodav. Fiz.-Mat. Fak. Ped. Inst. Dal'n. Vostok.* Ministerstvo Prosvetsheniia RSFSR. Habarovskii Gosudarstvennyi Pedagogicheskii Institut. Trudy Naučnogo Ob'edineniia Prepodavatelei Fiziko-matematicheskikh Fakul'tetov Pedagogicheskikh Institutov Dal'nego Vostoka. (Khabarovsk)
- Trudy Samarband. Gos. Univ. Mat.* Ministerstvo Vysshego i Srednego Special'nogo Obrazovaniia UzSSR. Trudy Samarkandakogo Gosudarstvennogo Universiteta im. A. Navoi. Matematika. (Samarkand)
- Trudy Sem. Obratn. Kraev. Zadacham.* Trudy Seminara po Obratnym Kraevym Zadacham. (Kazan)
- Trudy Sem. Teor. Differencial. Uravnenii s Otklon. Argumentom Univ. Druzhby Narodov Patria Lumumby.* Trudy Seminara po Teorii Differencial'nykh Uravnenii s Otklonjajushchimsia Argumentom. Universitet Druzhby Narodov imeni Patria Lumumby. (Moscow)
- Trudy Sem. Vektor. Tensor. Anal.* Trudy Seminara po Vektornomu i Tenzornomu Analizu s ih Priloženijami k Geometrii, Mehanike i Fizike. (Moscow)
- Trudy Sibirsk. Fiz.-Tehn. Inst.* Trudy Sibirskogo Fiziko-Tekhnicheskogo Instituta imeni Akademika V. D. Kuznecova. (Tomsk)
- Trudy Tashkent. Gos. Univ.* Trudy Tashkentakogo Gosudarstvennogo Universiteta im. V. I. Lenina. Matematika. (Tashkent) See *Tashkent. Gos. Univ. Naučn. Trudy.*
- Trudy Tomsk. Gos. Univ. Ser. Meh.-Mat.* Trudy Tomskogo Gosudarstvennogo Universiteta im. V. V. Kuibysheva. Serija Mehaniko-Matematicheskaja. (Tomsk)
- Trudy Univ. Druzhby Narod.* Trudy Universiteta Druzhby Narodov imeni Patria Lumumby. (Moscow)
- Trudy Vsesojuz. Začn. Energet. Inst.* Trudy Vsesojuznogo Začnogo Energeticheskogo Instituta. (Moscow)
- Trudy Vyčisl. Centra Akad. Nauk Armjan. SSR i Erevan. Gos. Univ.* Trudy Vyčislitel'nogo Centra Akademii Nauk Armjanskoi SSR i Erevanskogo Gosudarstvennogo Universiteta. (Erevan)
- Trudy Vyčisl. Centra Akad. Nauk Gruzin. SSR.* Akademija Nauk Gruzinskoi SSR. Trudy Vyčislitel'nogo Centra. (Tbilisi) See *Sakharth. SSR Mecn. Akad. Gamotsh. Centr. Šrom.*
- Trudy Vyčisl. Centra Tartu. Gos. Univ.* Trudy Vyčislitel'nogo Centra. Tartuskii Gosudarstvennyi Universitet. (Tartu)
- Turkmen. Gos. Univ. Učen. Zap.* Ministerstvo Narodnogo Obrazovaniia TSSR. Turkmeniskii Gosudarstvennyi Universitet imeni A. M. Gor'kogo. Učenyje Zapiski. (Ashkhabad)
- U.S.S.R. Comput. Math. and Math. Phys.* U.S.S.R. Computational Mathematics and Mathematical Physics. (Oxford) (Translation of *Ž. Vyčisl. Mat. i Mat. Fiz.*)
- Učen. Zap. Borisoglebsk. Gos. Ped. Inst.* Ministerstvo Prosvetsheniia RSFSR. Učenyje Zapiski. Borisoglebskogo Gosudarstvennogo Pedagogicheskogo Instituta. (Borisoglebsk)
- Učen. Zap. Karel. Ped. Inst. Ser. Fiz.-Mat. Nauk.* Ministerstvo Prosvetsheniia RSFSR. Karel'skii Pedagogicheskii Institut. Učenyje Zapiski. Serija Fiziko-Matematicheskikh Nauk. (Petrozavodsk)
- Ukrain. Fiz. Ž.* Akademija Nauk Ukrain'skoi RSR. Viddil Fiziki. Ukrain'skii Fizičnii Žurnal. (Russian and Ukrainian editions) (Kiev)
- Ukrain. Geometr. Sb.* Ministerstvo Vysshego i Srednego Special'nogo Obrazovaniia USSR. Ukrainskii Geometričeskii Sbornik. (Khar'kov)
- Ukrain. Mat. Ž.* Akademija Nauk Ukrain'skoi SSR. Institut Matematiki. Ukrainskii Matematicheskii Žurnal. (Kiev) (Translated as: *Ukrainian Math. J.*)
- Ukrainian Math. J.* Ukrainian Mathematical Journal. (Translation of *Ukrain. Mat. Ž.*) (New York)
- Ul'janovsk. Gos. Ped. Inst. Učen. Zap.* Ul'janovskii Gosudarstvennyi Pedagogicheskii Institut imeni I. N. Ul'janova. Učennye Zapiski. (Saratov)
- Univ. Beograd. Publ. Elektrotehn. Fak. Ser. Mat. Fiz.* Univerzitet u Beogradu. Publikacije Elektrotehničkog Fakulteta. Serija Matematika i Fizika. (Belgrade)
- Univ. Buenos Aires Contrib. Ci. Ser. Mat.* Universidad de Buenos Aires. Facultad de Ciencias Exactas y Naturales. Contribuciones Científicas. Serie Matemática. (Buenos Aires)
- Univ. Central Venezuela Bol. Fac. Ing.* Universidad Central de Venezuela. Boletín de la Facultad de Ingeniería. (Caracas)
- Univ. e Politec. Torino Rend. Sem. Mat.* Università e Politecnico di Torino. Rendiconti del Seminario Matematico (già "Conferenze di Fisica e di Matematica"). (Turin)
- Univ. Genova Pubbl. Ist. Mat.* Università di Genova Pubblicazioni dell'Istituto di Matematica. (Genova)
- Univ. Lisboa Revista Fac. Ci. A.* Universidade de Lisboa. Revista da Faculdade de Ciências. 2.ª Série. A. Ciências Matemáticas. (Lisbon)
- Univ. Madrid Publ. Sec. Mat. Fac. Ci.* Universidad de Madrid. Publicaciones de la Sección de Matemática de la Facultad de Ciencias. (Madrid)
- Univ. Nac. Ingen. Inst. Mat. Puras Apl. Notas Mat.* Universidad Nacional de Ingeniería. Instituto de Matemáticas Puras y Aplicadas. Notas de Matemáticas. (Lima)
- Univ. Nac. La Plata Publ. Fac. Ci. Fisicomat. Serie Segunda Rev. (or Contrib.)* Universidad Nacional de La Plata. Publicaciones de la Facultad de Ciencias Fisicomatemáticas. Serie Segunda. Revista (or Contribuciones). (La Plata)
- Univ. Nac. La Plata Publ. Fac. Ci. Fisicomat. Serie Tercera Publ. Esp.* Universidad Nacional de La Plata. Publicaciones de la Facultad de Ciencias Fisicomatemáticas. Serie Tercera. Publicaciones Especiales. (La Plata)
- Univ. Nac. Tucumán Rev. Ser. A.* Universidad Nacional de Tucumán. Facultad de Ciencias Exactas y Tecnología. Revista. Serie A. Matemáticas y Física Teórica. (Tucumán)



ABBREVIATIONS OF NAMES OF JOURNALS

- Univ. Repúb. Fac. Ingen. Agrimens. Montevideo Publ. Inst. Mat. Estadist.* Universidad de la República. Facultad de Ingeniería y Agrimensura. Montevideo-Uruguay. Publicaciones del Instituto de Matemática y Estadística. (Montevideo)
- Univ. Roorkee Res. J.* University of Roorkee. Research Journal. (Roorkee)
- Univ. Adama Mickiewicza w Poznani. Prace Wydz. Mat. Fiz. Chem. Ser. Mat.* Uniwersytet im. Adama Mickiewicza w Poznaniu. Prace Wydziału Matematyki, Fizyki i Chemii. Seria Matematyka. (Poznań)
- Unternehmensforschung.* Unternehmensforschung. Operations Research—Recherche Opérationnelle. (Würzburg)
- Ural. Gos. Univ. Mat. Zap.* Ministerstvo Vyshego i Srednego Special'nogo Obrazovaniya RSFSR. Ural'skii Gosudarstvennyi Universitet im. A. M. Gor'kogo. Ural'skoe Matematicheskoe Obshchestvo. Matematicheskie Zapiski. (Sverdlovsk)
- Ural. Politehn. Inst. Sb.* Ministerstvo Prosvetsheniya RSFSR. Ural'skii Politehnicheskii Institut im. S. M. Kirova. Sbornik. (Sverdlovsk)
- Uspehi Mat. Nauk.* Akademiya Nauk SSSR i Moskovskoe Matematicheskoe Obshchestvo. Uspehi Matematicheskikh Nauk. (Moscow-Leningrad) (Selected articles translated as: *Russian Math. Surveys*)
- Užgorod. Gos. Univ. Naučn. Zap.* MVO USSR. Užgorodskii Gosudarstvennyi Universitet. Naučnye Zapiski. (Lvov)
- V. I. Lenin. Sakharth. Politekh. Inst. Šrom.* V. I. Leninis Sahelebišromis Citheli Drošis Ordenosani Sakharthvelos Politehnikuri Institut. Šromebi. (Tbilisi) (Formerly listed as: *Gruzin. Politehn. Inst. Trudy*)
- Vesci Akad. Navuk BSSR Ser. Fiz.-Mat. Navuk.* Vesci Akademii Navuk BSSR. Seryja Fizika-matematyčnyh Navuk. (Minsk)
- Vesci Akad. Navuk BSSR Ser. Fiz.-Tehn. Navuk.* Vesci Akademii Navuk BSSR. Seryja Fizika-Tehničnyh Navuk. (Minsk)
- Vestnik Akad. Nauk Kazah. SSR.* Vestnik Akademii Nauk Kazahskoi SSR. (Alma-Ata)
- Vestnik Har'kov. Gos. Univ.* Ministerstvo Vyshego i Srednego Special'nogo Obrazovaniya USSR. Vestnik Har'kovskogo Gosudarstvennogo Universiteta. Serija Mehaniko-Matematičeskaja. Zapiski Mehaniko-Matematičeskogo Fakulteta i Har'kovskogo Matematicheskogo Obshchestva. (Kharkov)
- Vestnik Leningrad. Univ.* Vestnik Leningradskogo Universiteta. (Leningrad)
- Vestnik L'vov. Politehn. Inst.* Ministerstvo Vyshego i Srednego Special'nogo Obrazovaniya USSR. Vestnik L'vovskogo Politehnicheskogo Instituta. (Lvov)
- Vestnik Moskov. Univ. Ser. I Mat. Meh.* Vestnik Moskovskogo Universiteta. Serija I. Matematika, Mekhanika. (Moscow)
- Vestnik Moskov. Univ. Ser. III Fiz. Astronom.* Vestnik Moskovskogo Universiteta. Serija III. Fizika, Astronomija. (Moscow) (Translated as: *Moscow Univ. Bull. Ser. III Phys. Astronom.*)
- Vidya.* Vidya (Knowledge). The Journal of the Gujarat University. (Ahmedabad)
- Vierteljahr. Naturforsch. Ges. Zürich.* Vierteljahrsschrift der Naturforschenden Gesellschaft in Zürich. (Zürich)
- Vijnana Parishad Anusandhan Patrika.* Vijnana Parishad Anusandhan Patrika [The Research Journal of the Hindi Science Academy]. (Allahabad)
- Visnik Kite. Univ.* Visnik Kiivs'kogo Universitetu. (Kiev)
- Visnik L'viv. Derž. Univ. Ser. Meh.-Mat.* Ministerstvo Višchoi i Srednoi Special'noi Osviti URSR. Visnik L'viv'skogo Ordenu Lenina Deržavnogo Universitetu im. Ivana Franka. Serija Mehaniko-Matematična. (Lvov)
- Volž. Mat. Sb.* Ministerstvo Prosvetsheniya RSFSR. Kuibyševskii Gosudarstvennyi Pedagogičeskii Institut imeni V. V. Kuibyševa. Volžskii Matematicheskii Sbornik. (Kuibyshev)
- Voprosy Istor. Estestvoznani. i Tehn.* Akademiya Nauk SSSR. Voprosy Istorii Estestvoznaniya i Tehniki. (Moscow)
- Voprosy Kibernet. Vyčisl. Mat.* Akademiya Nauk Uzbekakoī SSR. Institut Kibernetiki i Vyčislitel'nykh Centrom. Voprosy Kibernetiki i Vyčislitel'noi Matematiki. (Taškent) (Formerly: *Voprosy Vyčisl. Mat. Tehn.*)
- Voprosy Kosmog.* Akademiya Nauk SSSR. Voprosy Kosmogonii. (Moscow)
- Voprosy Vyčisl. Mat. Tehn.* Akademiya Nauk Uzbekakoī SSR. Institut Mehaniki i Vyčislitel'nykh Centr. Voprosy Vyčislitel'noi Matematiki i Tehniki. (Taškent) (Continued as: *Voprosy Kibernet. Vyčisl. Mat.*)
- Vyčisl. Mat. (Kiev).* Kievskii Gosudarstvennyi Universitet. Kafedra Vyčislitel'noi Matematiki. Vyčislitel'naja Matematika. (Kiev) (Continued as: *Vyčisl. Prikl. Mat. (Kiev)*)
- Vyčisl. Prikl. Mat. (Kiev).* Kievskii Gosudarstvennyi Universitet. Meždovomstvennyi Naučnyi Sbornik. Vyčislitel'naja i Prikladnaja Matematika. (Kiev) (Formerly: *Vyčisl. Mat. (Kiev)*)
- Vyčisl. Sistemy.* Akademiya Nauk SSSR. Sibirskoe Otdelenie. Institut Matematiki. Vyčislitel'nye Sistemy. Sbornik Trudov. (Novosibirsk)
- Vyčisl. Tehn. Voprosy Programm.* Leningradskii Ordenu Lenina Gosudarstvennyi Universitet imeni A. A. Ždanova. Kafedra Vyčislitel'noi Matematiki i Vyčislitel'nykh Centr. Vyčislitel'naja Tehnika i Voprosy Programirovaniya. (Leningrad)
- Wiadom. Mat.* Roczniki Polskiego Towarzystwa Matematycznego. Ser. II. Wiadomości Matematyczne. (Warsaw)
- Wiss. Z. Ernst-Moritz-Arndt-Univ. Greifswald Math.-Natur. Reihe.* Wissenschaftliche Zeitschrift der Ernst-Moritz-Arndt-Universität Greifswald. Mathematisch-Naturwissenschaftliche Reihe. (Greifswald)
- Wiss. Z. Friedrich-Schiller-Univ. Jena/Thüringen.* Wissenschaftliche Zeitschrift der Friedrich-Schiller-Universität Jena/Thüringen. (Jena/Thüringen)
- Wiss. Z. Hochsch. Verkehrswesen "Friedrich List" Dresden.* Wissenschaftliche Zeitschrift der Hochschule für Verkehrswesen "Friedrich List" in Dresden. Die Anwendung mathematischer Methoden im Transport- und Nachrichtenwesen. (Dresden)
- Wiss. Z. Humboldt-Univ. Berlin Math.-Natur. Reihe.* Wissenschaftliche Zeitschrift der Humboldt-Universität Berlin. Mathematisch-Naturwissenschaftliche Reihe. (Berlin)
- Wiss. Z. Karl-Marx-Univ. Leipzig Math.-Natur. Reihe.* Wissenschaftliche Zeitschrift der Karl-Marx-Universität Leipzig. Mathematisch-Naturwissenschaftliche Reihe. (Leipzig)
- Wiss. Z. Martin-Luther-Univ. Halle-Wittenberg Math.-Natur. Reihe.* Wissenschaftliche Zeitschrift der Martin-Luther-Universität Halle-Wittenberg. Mathematisch-Naturwissenschaftliche Reihe. (Halle-Wittenberg)
- Wiss. Z. Pädagog. Hochsch. Potsdam Math.-Natur. Reihe.* Wissenschaftliche Zeitschrift der Pädagogischen Hochschule Potsdam. Mathematisch-Naturwissenschaftliche Reihe. (Potsdam)
- Wiss. Z. Techn. Hochsch. Chem. Leuna-Merseburg.* Wissenschaftliche Zeitschrift der Technischen Hochschule für Chemie Leuna-Merseburg. (Leuna-Merseburg)
- Wiss. Z. Techn. Hochsch. Ilmenau.* Wissenschaftliche Zeitschrift der Technischen Hochschule Ilmenau. (Ilmenau)
- Wiss. Z. Techn. Univ. Dresden.* Wissenschaftliche Zeitschrift der Technischen Universität Dresden. (Dresden)
- Wyższ. Szkoła Ped. Krakow. Rocznik Nauk.-Dydakt. Prace Mat.* Wyższa Szkoła Pedagogiczna w Krakowie. Rocznik Naukowo-Dydaktyczny. Prace Matematyczne. (Cracow)
- Yokohama Math. J.* Yokohama Mathematical Journal. (Yokohama)
- Z. Angew. Math. Mech.* Zeitschrift für Angewandte Mathematik und Mechanik. Ingenieurwissenschaftliche Forschungsarbeiten. (Berlin)
- Z. Angew. Math. Phys.* Zeitschrift für Angewandte Mathematik und Physik. ZAMP. Journal of Applied Mathematics and Physics. Journal de Mathématiques et de Physiques Appliquées. (Basel)
- Z. Eksp. Teoret. Fiz.* Akademiya Nauk SSSR. Žurnal Ėksperimental'noi i Teoreticheskoi Fiziki. (Moscow) (Translated as: *Soviet Physics JETP*)

# ABBREVIATIONS OF NAMES OF JOURNALS

- Z. Math. Logik Grundlagen Math.* Zeitschrift für Mathematische Logik und Grundlagen der Mathematik. (Berlin)
- Z. Naturforsch.* Zeitschrift für Naturforschung. (Tübingen)
- Z. Phonetik Sprachwiss. Kommunikat.* Zeitschrift für Phonetik Sprachwissenschaft und Kommunikationsforschung. (Berlin)
- Z. Physik.* Zeitschrift für Physik. (Berlin-Göttingen-Heidelberg)
- Z. Prikl. Meh. i Tehn. Fiz.* Zhurnal Prikladnoi Mekhaniki i Tekhnicheskoi Fiziki. (Moscow) (Translated as: *J. Appl. Mech. Tech. Phys.*)
- Z. Vychisl. Mat. i Mat. Fiz.* Akademiya Nauk SSSR. Zhurnal Vychislitel'noi Matematiki i Matematicheskoi Fiziki. (Moscow) (Translated as: *U.S.S.R. Comput. Math. and Math. Phys.*)
- Z. Wahrscheinlichkeitstheorie und Verw. Gebiete.* Zeitschrift für Wahrscheinlichkeitstheorie und Verwandte Gebiete. (Berlin)
- Zap. Mat.-Mat. Fak. i Har'kov. Mat. Obsh.* See *Vestnik Har'kov. Gos. Univ.*
- Zap. Nauch. Sem. Leningrad. Otdel. Mat. Inst. Steklov. (LOMI).* Zapiski Nauchnykh Seminarov Leningradskogo Otdeleniya Matematicheskogo Instituta im. V. A. Steklova Akademii Nauk SSSR (LOMI). (Moscow) (Translated as: *Sem. Math. V. A. Steklov Math. Inst. Leningrad*)
- Zastos. Mat.* Polska Akademia Nauk. Instytut Matematyczny. Zastosowania Matematyki. (Warsaw)
- Zbl. Zentralblatt für Mathematik und ihre Grenzgebiete.* (Berlin-Göttingen-Heidelberg)
- Zbl. Math.* Zentralblatt für Mathematik und ihre Grenzgebiete (Berlin-Göttingen-Heidelberg) (Usually abbreviated Zbl in the text of *Math. Reviews*)
- Zeszyty Nauk. Mat. Fiz. i Chem. Wyt. Szkol. Ped. Gdańsk.* Zeszyty Naukowe Matematyka Fizyka i Chemia. Wyższa Szkoła Pedagogiczna w Gdańsku. Wydział Matematyki, Fizyki i Chemii. (Gdańsk)
- Zeszyty Nauk. Politech. Poznań.* Zeszyty Naukowe Politechniki Poznańskiej. (Poznań)
- Zeszyty Nauk. Politech. Szczecin.* Zeszyty Naukowe Politechniki Szczecińskiej. (Szczecin)
- Zeszyty Nauk. Politech. Warszawsk. Mat.* Politechnika Warszawska. Instytut Matematyki. Zeszyty Naukowe. Matematyka i jej Zastosowanie. (Warsaw)
- Zeszyty Nauk. Univ. Jagiello. Prace Fiz.* Zeszyty Naukowe Uniwersytetu Jagiellońskiego. Prace Fizyczne. (Kraków)
- Zeszyty Nauk. Univ. Jagiello. Prace Mat.* Zeszyty Naukowe Uniwersytetu Jagiellońskiego. Prace Matematyczne. (Matematyka, Fizyka, Chemia) (Kraków)
- Zeszyty Nauk. Univ. Jagiello. Prace z Logiki.* Zeszyty Naukowe Uniwersytetu Jagiellońskiego. Prace z Logiki. (Cracow)
- Zeszyty Nauk. Univ. Łódz. Nauki Mat. Przyrod. Ser. II.* Zeszyty Naukowe Uniwersytetu Łódzkiego. Nauki Matematyczno-Przyrodnicze. Seria II. (Łódź)
- Zhongguo Kexue Jishu Daxue Xuebao.* (Peking) See *J. China Univ. Sci. Techn.*

# JOURNALS IN TRANSLATION

- Acta Mech. Sinica* (New York). *Acta Mechanica Sinica*. (New York) (Translation of *Acta Mech. Sinica* (Peking))
- Astrophysics*. *Astrophysics*. (A translation of *Astrofizika* of the Academy of Sciences of the Armenian SSR). (New York) (Translation of *Astrofizika*)
- Automat. Remote Control*. *Automation and Remote Control*. (A translation of *Avtomatika i Telemekhanika*, a publication of the Academy of Sciences of the USSR). (Pittsburgh, Pa.) (Translation of *Avtomat. i Telemekh.*)
- Chinese J. Phys.* (Peking) *Chinese Journal of Physics* (Peking). (A translation of *Acta Physica Sinica* of the Chinese Academy of Sciences, Peking). (New York) (Translation of *Acta Phys. Sinica*)
- Chinese Math.—Acta*. *Chinese Mathematics*. Translation of *Acta Mathematica Sinica*. (Providence, R.I.) (Translation of *Acta Math. Sinica*)
- Cybernetics*. *Cybernetics*. (New York) (A translation of *Kibernetika* (Kiev))
- Differential Equations*. *Differential Equations*. (New York) (Translation of *Differentsial'nye Uravneniya*)
- Engng. Cybernetics*. *Engineering Cybernetics*. English Edition of *Tekhnicheskaya Kibernetika*. (New York) (Translation of *Izv. Akad. Nauk SSSR Tekh. Kibernet.*)
- Functional Anal. Appl.* *Functional Analysis and its Applications*. (New York) (Translation of *Funktsional. Anal. i Prilozhen.*)
- Izv. Acad. Sci. USSR Atmospher. Ocean. Phys.* *Izvestiya Academy of Sciences USSR. Atmospheric and Oceanic Physics*. (Washington, D.C.) (Translation of *Izv. Akad. Nauk SSSR Ser. Fiz. Atmosfer. i Okeana*)
- Izv. Acad. Sci. USSR Phys. Solid Earth*. *Izvestiya Academy of Sciences USSR. Physics of the Solid Earth*. (Washington, D.C.) (Translation of *Izv. Akad. Nauk SSSR Ser. Fiz. Zemli*)
- J. Appl. Math. Mech.* *Journal of Applied Mathematics and Mechanics*. (Translation of the Soviet journal *Prikladnaya Matematika i Mekhanika*). (New York) (Translation of *Prikl. Mat. Meh.*)
- J. Appl. Mech. Tech. Phys.* *Journal of Applied Mechanics and Technical Physics*. (Translation of *Ž. Prikl. Meh. i Tehn. Fiz.*) (New York)
- Magnetohydrodynamics*. *Magnetohydrodynamics*. (A translation of *Magnitnaya Gidrodinamika* of the Academy of Sciences of the Latvian SSR). (New York) (Translation of *Magnit. Gidrodinamika*)
- Math. Notes*. *Mathematical Notes of the Academy of Sciences of the USSR*. (New York) (Translation of *Mat. Zametki*)
- Math. USSR-Izv.* *Mathematics of the USSR-Izvestiya*. (Providence, R.I.) (Translation of *Izv. Akad. Nauk SSSR Ser. Mat.*)
- Math. USSR-Sb.* *Mathematics of the USSR-Sbornik*. (Providence, R.I.) (Translation of *Mat. Sb.*)
- Moscow Univ. Bull. Ser. III Phys. Astronom.* *Moscow University. Moscow University Bulletin. Series III. Physics and Astronomy*. (Acton, Mass.) (Translation of *Vestnik Moskov. Univ. Ser. III Fiz. Astronom.*)
- Problems der Kybernetik*. *Problems der Kybernetik*. (Berlin) (Translation of *Problemy Kibernet.*)
- Problems of Information Transmission*. *Problems of Information Transmission*. (New York) (Translation of *Problemy Peredachi Informatsii*)
- Proc. Steklov Inst. Math.* *Proceedings of the Steklov Institute of Mathematics*. (Providence, R.I.) (Translation of *Trudy Mat. Inst. Steklov.*)
- Radio Engng. Electron. Phys.* *Radio Engineering and Electronic Physics*. (Translation of *Radiotekhnika i Elektronika*, a U.S.S.R. Academy of Sciences Publication). (New York) (Translation of *Radiotekhn. i Elektron.*)
- Russian Math. Surveys*. *Russian Mathematical Surveys*. (A translation of the survey articles and of selected biographical articles in *Uspehi Matematicheskikh Nauk*). (London) (Translation of *Uspehi Mat. Nauk*)
- Sem. Math. V. A. Steklov Math. Inst. Leningrad*. *Seminars in Mathematics V. A. Steklov Mathematical Institute Leningrad*. (New York) (Translation of *Zap. Nauch. Sem. Leningrad. Otdel. Mat. Inst. Steklov. (LOMI)*)
- Siberian Math. J.* *Siberian Mathematical Journal*. (New York) (Translation of *Sibirsk. Mat. Zh.*)
- Soviet Appl. Mech.* *Soviet Applied Mechanics*. (New York) (Translation of *Prikladna. Meh.*)
- Soviet J. Nuclear Phys.* *American Institute of Physics. Soviet Journal of Nuclear Physics*. (New York) (Translation of *Jadernaja Fiz.*)
- Soviet Math. Dokl.* *Soviet Mathematics. Doklady*. (A translation of the mathematics section of *Doklady Akademii Nauk SSSR*). (Providence, R.I.) (Translation of mathematics section of *Dokl. Akad. Nauk SSSR*)
- Soviet Physics Acoust.* *Soviet Physics. Acoustics*. (A translation of *Akusticheskii Zhurnal* of the Academy of Sciences of the USSR). (New York) (Translation of *Akust. Zh.*)
- Soviet Physics Dokl.* *Soviet Physics. Doklady*. (A translation of the physics sections of *Doklady Akademii Nauk SSSR*). (New York) (Translation of physics sections of *Dokl. Akad. Nauk SSSR*)
- Soviet Physics J.* *Soviet Physics Journal*. (New York) (Translation of *Izv. Vys. Uchebn. Zaved. Fizika*)
- Soviet Physics JETP*. *Soviet Physics. JETP*. (A translation of *Ž. Eksperimental'noi i Teoreticheskoi Fiziki* of the USSR). (New York) (Translation of *Ž. Eksper. Teoret. Fiz.*)
- Soviet Radiophys.* *Soviet Radiophysics*. (A translation of the *Izvestiya Vyskh Uchebnykh Zavedenii Radiofizika* of the Ministry of Higher Education of the USSR). (New York) (Translation of *Izv. Vys. Uchebn. Zaved. Radiofizika*)
- Systems Theory Res.* *Systems Theory Research*. (New York) (Translation of *Problemy Kibernet.*)
- Theor. Probability Appl.* *Theory of Probability and its Applications*. (An English translation of the Soviet journal *Teoriya Veroyatnostei i ee Primeneniya*). (Philadelphia, Pa.) (Translation of *Teor. Veroyatnost. i Primenen.*)
- Trans. Moscow Math. Soc.* *Transactions of the Moscow Mathematical Society*. (Providence, R.I.) (Translation of *Trudy Moskov. Mat. Obsh.*)
- U.S.S.R. Comput. Math. and Math. Phys.* *U.S.S.R. Computational Mathematics and Mathematical Physics*. (Oxford) (Translation of *Ž. Vychisl. Mat. i Mat. Fiz.*)
- Ukrainian Math. J.* *Ukrainian Mathematical Journal*. (New York) (Translation of *Ukrain. Mat. Zh.*)



# ERRATA AND ADDENDA

## VOLUME 22

#712: Milmes, Harold Willis  
The author's name is Harold Willis Milnes.

#4733: Wandelin, Hermann  
The author's name is Hermann Wendelin.

#9222: Vensevskii, S. V.; Svirskii, M. S.  
The first author's name is S. V. Vonsovskii.

#10750: Wen, William Li-Shu  
The correct paging in the heading is 411-417.

## Index for Volume 22

On p. 2444, under Svirskii, M. S., change Vensevskii, S. V. to Vonsovskii, S. V. On p. 2456 delete the entry for Vensevskii, S. V. and transfer item 9222 to Vonsovskii, S. V. on p. 2458.

## VOLUME 23

#A2217: Vranceanu, G. A.; Ganea, T.  
In the heading, replace "Vranceanu, G. A." by "Vranceanu, G. [Vranceanu, Gheorghe]".

## Index for Volume 23A

On p. 830, under Ganea, T., change Vranceanu, G. A. to Vranceanu, Gheorghe. On p. 872 replace Vranceanu, G. A. by Vranceanu, Gheorghe.

#B1428: Vrkiĵan, Vladimir  
In the author's surname replace "i" by "j".

## Index for Volume 23B

On p. 604 replace Vrkiĵan, Vladimir by Vrkliĵan, Vladimir.

## VOLUME 24

#A2138: Yamaguti, Massaya  
Delete one "s" from author's first name.

#A3494: Vulih, B. Z.  
In line 9, replace the first "in" by "is".

Index for Volume 24A  
On p. 756 delete one "s" from the name Yamaguti, Massaya.

## VOLUME 26

#280: Źornickaja, L. V.  
The author's name is L. V. Źornickaja.

Index for Volume 26  
On p. 1518 replace Źornickaja, L. V. by Źornickaja, L. V.

## VOLUME 28

p. 843: Pták, Vlastimil  
The review number is 4337 not 433.

## VOLUME 31

#5159: Godeaux, Lucien  
At the end of the title insert "II."

#5160: Godeaux, Lucien  
At the end of the title insert "III."

#5385: Bogoroditskii, A. M. [Bogoroditskii, A. M.]  
Replace the name in brackets by "Bogorodickii, A. M."

## Index for Volume 31

On p. 1218 replace Bogoroditskii, A. M. by Bogorodickii, A. M. On p. 1238 in the entry for Godeaux, Lucien insert "II." after the title for item 5159 and "III." after the title for item 5160.

## VOLUME 33

#267: Brazilevič, J. E.  
The author's name is I. E. Bazilevič.

## Index for Volume 33

On p. 1460 delete the entry for Brazilevič, J. E. and transfer item 267 to Bazilevič, I. E. on p. 1455.

## VOLUME 34

## #7481: Vinogradov, A. I.

The author has communicated to the editors that a serious error appears in his article, due to different branches of the logarithm being used in formulas (4.12) and (4.13). According to the author, the work in its present form is incorrect.

## #7591: Luchian, Tudora

In the first reference in lines 9-10, replace "no. 3-4" by "no. 1-2" and delete "MR 26 #1324;"

## VOLUME 35

## #3237: C. E. Billigheimer

The first equation in line 2 should read " $\square^2 u = bu + cu^2$ ". In lines 3 and 6 the last term of the equation should be " $-C^{-2} \partial^2 / \partial t^2$ ".

## #3930: Samarskii, A. A.

Replace throughout "two-point" and "three-point" by "two-level" and "three-level", respectively.

## #4094: Chang, C. C.

After the author's name add "[Chang, Chen-chung]"

## #5324: Chang, C. C.

After the author's name add "[Chang, Chen-chung]"

## Index for Volume 35

On p. 1453 replace Chang, C. C. by Chang, Chen-chung.

## VOLUME 36

On p. 1189: Section heading: Statistical physics, structure of matter

Delete the number 5018 from the list of cross references.

## #2406: Vorob'ev, N. N.

The sentence beginning in line 5 should read: "The elements of the sets  $I$ ,  $\mathcal{A}$ ,  $S_i$  and . . ."

## #2591: Gut, M.; Stünzi, M.

My review of the paper indicated is misleadingly brief at one point, for it may be taken to imply that the main result (formula (2)) of the paper is contained in the works of Hurwitz. That is not so; the result is both striking and new. What I intended to convey was that results of this kind appear to be due originally to Hurwitz, if not to Jacobi, who obtained congruences for the class number  $h$  in terms of the coefficients of a related series. See, for example, Hurwitz, *Mathematische Werke. Bd. II*, p. 223, Birkhäuser, Basel, 1963 [MR 27 #4723b]. Moreover, the present authors use the Lagrange notation, while Hurwitz used the Gauss notation. I apologize both to the authors and to any readers who may have been misled.

J. V. Armitage

## #3664: Keedwell, A. D.

The first part of the second sentence should read "A new special case of this method, which the author calls . . .". The final paragraph should read "In a final section the author considers the case in which the unifying method yields a complete set of latin squares, and studies the relationships between the addition and multiplication connected with this method and the addition and multiplication of a suitably chosen ternary ring coordinatizing the projective plane arising from the complete set."

## #3864: Kantor, William M.

"It has been called to the attention of the reviewer that the author's proof of the theorem, quoted in the review, is not correct. The author's proof breaks down whenever  $G_{A|A}$  contains odd permutations."

## #4270: Berg, I. D.; Rubel, L. A.

The last sentence of the second paragraph should be deleted and replaced by the following: "An almost periodic function is periodic if and only if the characters which occur in its Fourier expansion generate a discrete subgroup of the dual group  $\hat{G}$ ."

The fourth sentence of the fourth paragraph should be altered to read: "In this case, the algebra  $D(G)$  . . ."

In the second sentence of the second paragraph insert "H" after the word "subgroup".

## #2611: Chatelet, François

The reviewer wishes to add the following: "The results of the paper have been anticipated in a large measure by G. Szekeres [Amer. Math. Monthly 59 (1952), 379-386; MR 13, 903]."

## #2885a, #2885b: Billigheimer, C. E.

The equation in line 2 should read " $su + au' + bu + cu^2 = 0$ ". The equation in line 5 should read " $\square^2 u = 4bu + 4cu^2$ ".

## #3047: de Bruijn, N. G.

Line 4 of the review should read " $(4\pi)^{-1} \int_{-\infty}^{\infty} |f(t)|^2 dt$ ".

## #4658: Vervaat, W.

Replace the displayed formula by

$$\check{G}(\tau) = \frac{\lambda}{\lambda + \tau} \left\{ 1 - \frac{(1 - \check{A}(\lambda + \tau))(1 - \check{B}(\tau))}{(\lambda + \tau)(-\check{A}'(0))(1 - \check{A}(\lambda + \tau)\check{B}(\tau))} \right\}.$$

## #5087: Sprindžuk, V. G.

In line 6, the first term in parentheses in the second inequality should read " $(n, \epsilon)$ " and not " $(n, \epsilon 1)$ ".

VOLUME 36 *cont.*

#5706: Hakeda, Jōsuke; Tomiyama, Jun

In the next to the last line, delete "non-hyperfinite".

#5897: Frolík, Zdeněk

The author and the reviewer and R. A. Raimi are agreed that the reviewer erred in ascribing to Raimi the special case  $|M| = \aleph_0$  of the author's Theorem B: If  $M$  is discrete and  $f$  is a homeomorphism of  $\beta M$  into  $\beta M - M$ , then  $f$  has no fixed-point. The theorem essentially due to Raimi [Duke Math. J. **33** (1966), 1-12; MR **33** #6608] is that if  $f$  is a homeomorphism of  $\beta M$  onto itself (with  $M$  discrete and  $|M| = \aleph_0$ ), then each  $f$ -fixed point in  $\beta M$  is the limit of  $f$ -fixed points in  $M$ .

#6530: Robinson, D. A.

In the first line replace "4-tuples" by "5-tuples".

#6570: Pfeffer, Allen M.

In line 5 change "Wirtinger" to "Wirtinger".

#6875: Goes, Günther

At the end of the last sentence insert "and  $\sup_n \sup_{x \in (0,1)} |\sum_{k=-n}^n c_k e^{2\pi i k x}| < \infty$ ".

#7291: Krylov, V. I.; Pal'cev, A. A.

In the second line of the second paragraph insert "to 0" after "-0.90". In the fourth line from the bottom delete "3".

## VOLUME 37

#349: Day, James Thomas

In the third and fourth lines from below, delete the reference in brackets.

#650: Lašćenov, K. V.

In the title replace " $(1-x^2)^p, |x|^q$ " by " $(1-x^2)^p \cdot |x|^q$ ".

#855: Kovancov, M. Ī.

In the heading insert "Ser. Mat. Meh." after "Kilv. Univ."

#924: Tamura, Ichiro

After the author's name add "[Tamura, Itiro]".

#1345: Chowla, Paromita

In lines 5 and 6 the correct reference should be to page 407 of the first edition or to page 429 of the second edition.

#1886: Leindler, L.

In line 4 of paragraph 3 replace "p. 179" by "pp. 179-180" and "Problem 1" by "Problem 3".

#3017: ŠvaĪ, A. I.

After the author's name insert "[ŠvaĪ, O. Ī.]".

#3505: Veličko, N. V.

In the last line, the correct paging is 569-575.

#3751: Ballester, C.; Pereyra, V.

After the name of the first author insert "[Ballester Pereyra, Concepción]".

#3752: Ballester, C.; Pereyra, V.

After the name of the first author insert "[Ballester Pereyra, Concepción]".

#5094: Vopěnka, P.; Hájek, P.

At the beginning of line 5 replace "of models" by "of V-models".

#5259: Poyatos, Francisco

After the author's name add "[Poyatos Suarez, Francisco]".

#6139b: Séminaire P. Dubriel, M.-L. Dubreil-Jacotin, L. Lesieur et C. Pisot. 20e année: 1966/67.

Exposé 16 was omitted from the listing of the contents of fascicule 2: R. Desq, Structure des demi-groupes.



# TRANSLITERATION OF CYRILLIC

Russian Letter Cap. Ital.	Mathematical Reviews; Zentralblatt für Mathematik	Bulletin Signalétique	Applied Mechanics Reviews	Science Abstracts	U.S. Library of Congress	Amer. Slavic & E. European Review	Journal of Symbolic Logic
А а	a	a	a	a	a	a	a
Б б	b	b	b	b	b	b	b
В в	v	v	v	v	v	v	v
Г г	g	g	g	g	g	g	g
Д д	d	d	d	d	d	d	d
Е е	e	e	e	e	e	e	e
Ё ё	ë	ë	e	ë	ë	ë	ë
Ж ж	zh	zh	zh	zh	zh	zh	zh
З з	z	z	z	z	z	z	z
И и	i	i	i	i	i	i	i
Й й	j	j	i	j	j	j	j
К к	k	k	k	k	k	k	k
Л л	l	l	l	l	l	l	l
М м	m	m	m	m	m	m	m
Н н	n	n	n	n	n	n	n
О о	o	o	o	o	o	o	o
П п	p	p	p	p	p	p	p
Р р	r	r	r	r	r	r	r
С с	s	s	s	s	s	s	s
Т т	t	t	t	t	t	t	t
У у	u	u	u	u	u	u	u
Ф ф	f	f	f	f	f	f	f
Х х	h	kh	kh	kh	kh	kh	h
Ц ц	c	c	ts	ts	ts	c	c
Ч ч	ch	ch	ch	ch	ch	ch	ch
Ш ш	sh	sh	sh	sh	sh	sh	sh
Щ щ	shch	shch	shch	shch	shch	shch	shch
Ъ ъ	˘	˘	˘	˘	˘	˘	˘
Ы ы	y	y	y	y	y	y	y
Ь ь	˘	˘	˘	˘	˘	˘	˘
Э э	è	e	e	é	é	è	e
Ю ю	ju	ju	yu	yu	iû	ju	û
Я я	ja	ja	ya	ya	iâ	ja	â

Other *Mathematical Reviews* conventions are as follows:

The Ukrainian І, і are transliterated Ĭ, ĭ, respectively.

The Ukrainian І, і are reproduced without change.

The Serbian Ђ, ђ are transliterated Đ, đ, respectively.

The Serbian Ђ, ђ are transliterated Ć, ć; the Serbian Љ, љ are transliterated Dž, dž.



